THE

TRANSACTIONS

OF THE

ROYAL HAWAIIAN

AGRICULTURAL SOCIETY:

AT ITS THIRD

ANNUAL MEETING IN JUNE, 1853.

VOL. 1, NO. 4.

HONOLULU:
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OFFICERS FOR 1853.

WM. L. LEE, *President.*

BENJ. PITMAN,
GEO. S. KENWAY,
L. L. TORBERT,
C. B. ANDREWS,
ROBT. W. WOOD,
JAS. F. B. MARSHALL,
} *Vice Presidents.*

GEORGE WILLIAMS, *Treasurer.*

JOHN MONTGOMERY, *Corresponding Secretary.*

E. O. HALL, *Recording Secretary.*

S. REYNOLDS,
B. F. SNOW,
C. R. BISHOP,
W. NEWCOMB,
S. N. CASTLE,
} *Executive Committee.*

PROCEEDINGS

OF THE

ROYAL AGRICULTURAL SOCIETY,

THIRD ANNUAL MEETING,

HONOLULU, JUNE 7, 1853.

THE SOCIETY met according to adjournment at the Court House, in Honolulu, at half-past 10 o'clock, A. M., his Honor, WM. L. LEE, President of the Society, in the Chair.

The business of the meeting commenced by the President reading his Annual Report, in compliance with the 9th Article of the Constitution, which was as follows:

Gentlemen of the Royal Hawaiian Agricultural Society:

The past year has been one of comparative prosperity, and the agricultural interests of the Islands are fast recovering from the sad reverses of 1851. Still the efforts of the agriculturist in some departments, especially in that of planting, is an uncertain business, owing to the want of the necessary capital, labor and knowledge, for its successful prosecution. In the present report I propose to state the efforts made by the Society collectively, together with those of some of its members individually, to promote the great object we have in view, and perhaps add a few suggestions in relation to the future.

SUGAR.—As is well known, one of our staple products, second to none in extent and importance, is sugar. The planters in this field are moving on slowly but steadily, and gradually improving their implements, machinery and modes of cultivation. The most serious drawback in this branch of agriculture is the heavy duty imposed upon our sugar and molasses in the United States, and the Society has not failed to use all the means in its power to procure its abolition. But our efforts, though promptly seconded by the Hawaiian Government and the American Commissioner at these Islands, have as yet resulted

in no success. San Francisco is our great market, and there we are subjected to a duty of nearly two cents per pound on our sugar, and about five cents per gallon on molasses. Let this onerous duty be removed, and the success of our sugar planters, and the consequent prosperity of the Islands will be secured.

The endeavor to cause cane to bear seed, as recommended in the valuable letter of Mr. Teschemaker, has thus far been a failure, and no effort has been made by the Society to introduce new varieties of the sugar cane from Tahiti and other countries, as it is generally thought by our oldest planters that the several kinds of native cane now in cultivation are the best adapted to our soil and climate. The Tahitian cane introduced by Messrs. Ladd & Co. about ten years since, has nearly if not entirely disappeared, and there are contradictory opinions as to its value. I think, however, that it should have a fair trial, and that the Society could not make a better expenditure of a few dollars than by re-introducing it.

There is a rapid increase in the consumption of sugar throughout the world, and as the growth of this article does not keep pace with the consumption, the prospect is that prices will rather advance than decline. The whole produce of the Islands during the last year we estimate at about 700 tons, which, with the syrup and molasses manufactured, may be valued at $100,000. The crop for the year to come promises to be twice as large, and this is but a small fraction of what it should be. We have thousands of acres of first-rate cane lands now vacant and idle, which, with capital, enterprise and labor, are capable of producing enough to pay for all the goods we import. At present there is a lack of confidence in the business of sugar growing, arising from the reverses of 1850 and 1851. There is a lack of means in the country to set the ball fairly in motion, but the time will come, must come, when this business shall receive an impulse which will whiten our waste lands with the plumes of the sugar cane.

Our planters are to be congratulated on the return of Mr. Weston to the Islands, a man eminently qualified to improve our machinery and secure us against those vexatious break-downs of mills, &c.

Coffee.—The raising of coffee in favorable locations, for instance in the Valley of Hanalei, on Kauai, and the districts of Kona and

Hilo, on Hawaii, is undoubtedly a profitable business, and evidently destined to advance. The Society has taken no measures to introduce new seed from other coffee growing countries; for it is generally admitted by the best judges, that the Kona coffee of Hawaii, is not surpassed by any in the world. However, there is little doubt that the cultivation of coffee might be improved by more knowledge, and consequently the Society has sent for the most approved treatises on its culture, which are expected to arrive in a few months.

WHEAT, CORN, OATS.—A strong impulse has been given to the raising of grains since our last meeting, by the high price of flour and other bread-stuffs, and the farmers of East Maui have apparently gone to work in earnest, with the determination to raise sufficient wheat to supply our home consumption, which is no small item in our bill of expenses. Heretofore the raising of wheat has been considered as a very doubtful experiment, and has been prosecuted by only two or three individuals on a very small scale. The able Report of the Chairman of the Committee on Grains, read at our last meeting, demonstrates the adaptation of our soil to the raising of wheat, especially on East Maui, and I see no reason why we should not grow our own bread. All the seed that could be spared from Mr. Green's crop of last year has been sown by himself, Mr. Croswell and others, and gives promise of a fair harvest. There is an enterprise under way, having for its object the erection of a good Flour Mill on the Wailuku river, sufficiently large to manufacture more flour than we can consume, and it is hoped it will meet with success. The raising of our own bread is an object of the greatest importance, and one that demands our earnest attention. No doubt there is much to be gained by occasionally changing our seeds of wheat, corn, &c., for the better kinds of other countries, and the Society, following the suggestions of the Committee on Grains, has taken measures to introduce the choicest qualities of seed wheat, oats, barley and Indian corn from England and the United States. A box of these grains and other valuable seeds, for which we are indebted to the kindness of B. P. Johnson, Esq., Corresponding Secretary of the New York State Agricultural Society, is now on its way to the Islands in the "Matanzas."

The raising of Indian corn has increased during the past year, and and what has been produced has found a ready market in Honolulu at from 3 to 5 cents per pound. Our corn crop, however, is a very uncertain one, the success or failure of which depends in a great degree on the seasons and time of planting. The study of the weather is almost as important to the farmer of these Islands as to the mariner. On Oahu the season for planting is from November to March, while on Kauai, only 70 miles distant, where corn has been planted almost for the first time this year, it is found that that planted in the winter months has come to nothing. On the contrary, that planted by Lieut. Reynolds in September last, gave a fair yield.

Barley and oats have as yet received very little attention, though considerable quantities are imported for horse feed. Oats and barley, I am told, do admirably on East Maui.

Potatoes.—Last year at this time our hopes of realizing much from this crop, formerly one of our greatest exports to California, were very low, as we were informed on all hands, that hereafter California would produce her own vegetables. The result was that few if any were planted, and the busy little villages of Kalepolepo and Kahului, the principal potato ports, suddenly became deserted. But within the last few months, the trade has revived, and is now steady and profitable, the demand exceeding the produce. Little or no trouble has been taken in cultivating this crop, and most of our potatoes are the spontaneous production of the uplands of East Maui and Hawaii. The dry mellow loam of the Kula and Kahola uplands is admirably adapted to the growth of this vegetable, and with any cultivation could be made to produce very superior potatoes. Mr. Torbert, who is extensively engaged in the raising of this crop has exhibited some beautiful specimens grown in Kula, and he is doing much to encourage the general cultivation of a better article. The red potato is considered the most profitable for exportation, while the orange white, I am told, is generally preferred for home consumption and the use of the whaling fleet. Some fine seed from Oregon, Vancouver's Island and Australia has been procured and distributed, but I have not yet learned the result. Potatoes have been planted to some extent on the high lands of Oahu and Kauai, but have generally

produced litttle more than tops. The potato disease, which has proved such a scourge in Europe and the United States, has not, so far as I can learn, yet made its appearance in the Pacific.

There is an increasing attention paid to the culture of the sweet potato, to which our soil and climate are admirably adapted. It grows well in almost every part of the Islands, and no where better than among the dry hot stones of Puna, Kau and Kona on Hawaii.—No one who has ever traveled over those districts can fail to have been struck with astonishment at the sight of beautiful sweet potatoes growing in hills of broken lava with not a particle of earth to be seen in their vicinity. The natives sometimes manure these hills of lava by placing a few boughs upon the lava, then piling stones on them, and when they are partially decayed pulling up the stems or woody part which leaves the leaves and bark to moisten and enrich the hill. The sweet potato is the great article of food in the dry burnt districts of Hawaii, and the cost of raising it is next to nothing. The yield, I am told, is from 50 to 75 bbls. per acre. The sweet potato of the Islands, however, is generally considered a very inferior article to that of Burmuda and the Carolinas, and I think we might do some good by importing seed of new varieties, for example, the Burmuda Reds and the Round long Yams of the Southern United States.

Fruit Trees.—The culture of fruit, after being so sadly neglected for years, is now commanding a lively attention, and nearly every person in and about Honolulu has gone to work in planting trees with an energy that promises well for the future. I am sorry to say that our apple, plum, pear, quince, cherry and other fruit trees introduced last year, and for which we hoped so much, have yielded us nothing but disappointment. They were planted by several ladies and gentlemen who are very enthusiastic in the culture of fruit, and though every pains was taken to make them thrive, yet it was in vain, and what have not died, are now lingering out a miserable existence, sickly, leafless and covered with scale insects. It is the general opinion that these trees would thrive in the cool climate and rich loamy soil of Kula on Maui, and the mountain districts of Kohala, Hamakua and Kona on Hawaii, but if so, I think they should be raised from the seed. We ought not to be disappointed when trees

brought from foreign lands, grown in a soil and climate totally different from our own, sicken and die.

But though we cannot raise apples, plums, pears, cherries, etc., yet we can produce figs, grapes, bananas, oranges and most other tropical fruits in abundance; and I may add the peach also, as any one may see who will visit the garden of Mr. Parker in Hamakua or Mr. Green's at Makawao. The former has 40 or 50 trees, larger and more luxuriant than any I ever saw in "Old Jersey," the growth of five or six years, from stones planted by his own hands. I consider it one of the cardinal and particular duties of every man in this climate to plant trees. Plant them for shade—plant them for ornament—plant them for fruit and profit—plant them as a monument which shall ever keep your memory in green remembrance, and transmit it with gratitude to generations unborn. Let those who wish to be convinced of the value of trees look back a few years upon the burned and barren yards of Honolulu, and compare them with the cool and beautiful groves of our forest city.

Mr. Montgomery, our Corresponding Secretary, has introduced within the past year over 50 new varieties of the vine from Australia, some of which are said to promise well, and it is hoped that he will eventually be able to furnish cuttings for vineyards on every island. The Osage orange has also been introduced by Messrs. Mitchell and Whitney with the view of furnishing us with a cheap and durable fence, but the plants, with very few exceptions, though grown from the seed, have become sick and feeble.

Tobacco.—The cultivation of this plant has not progressed sufficiently far to determine whether its production on a large scale will prove profitable or not; but I know of no reason for discouragment. Guano is used as a manure for this crop with great advantage in Cuba and the United States, and is said not only to produce a more rapid and vigorous growth, but a larger and finer leaf. It is well worth a trial here, and I take pleasure in laying before the Society a communication on the subject of using guano as a manure, from Thomas R. Eldridge, Esq., the King's Charge d'Affaires at Lima, addressed to the Minister of Foreign Relations. The Society have been at some trouble to import a lot of the best Havana seed from

Cuba, and also a few papers from the land of steady habits, good old Connecticut, where it is grown in large quantities.

NEAT CATTLE.—The raising of cattle, especially when connected with the dairy business, is one of the most profitable pursuits that can be followed in the Sandwich Islands.. They require no feeding, no salting, no sheltering, and the cost of raising them is very trifling, above the rent for pasture. They are worth $5 per head on Oahu, all ages counted, and on the other islands only about half as much, owing to the difficulty of transportation to market. There have been no new breeds imported this year, that I am aware of, though nearly all of our graziers are improving their cattle by crossing with the previous importations from Australia. Much credit is due to Mr. Hopkins, Mr. Moffat, Capt. Meek and others, for their efforts to improve our stock, and I am glad to learn they are being rewarded for their labors in this line by ample profits. It is generally admitted, I believe, that the best breeds yet introduced are those of Messs. Hopkins & Moffat, the Hereford and Angus. The Society authorized me to take measures for the importation of a good bull from the United States, and I have corresponded with some of the best agriculturists in that country on the subject. They generally recommend the Devon stock as the best, all things considered, for beef, working oxen and milk. In a letter recently received from B. P. Johnson, Esq., Corresponding Secretary of the New York State Agricultural Society, who is high authority on cattle, he says—"I can probably procure such Devon stock as I could recommend at from $50 to $150, delivered at Boston, i. e., a bull calf six or eight months old, and an in calf heifer two years old. This breed I think you will find well adapted to your islands, and they will prove very useful animals.—The cows are not large milkers, but give rich milk, that makes a large amount of butter in proportion to the quantity of milk. The steers make fine beef, and for working cattle no other breed equals them. They are easily kept, hardy, and will stand your climate well." The great expense of importing stock from the United States is a serious objection to carrying out the wishes of the Society, and probably the Devon, and also the Durham breed, to which I have always been partial, might be imported from Australia at much less cost

Some of our cattle growers are awaking to the importance of bestowing more attention to Dairy Husbandry, and we may indulge the hope of being able in a few years to export a considerable quantity of butter and cheese to California and elsewhere. I had the pleasure a few months since of spending two days with Mr. Parker on Hawaii, who has one of the finest herds of cows in the group, and finer looking animals I have rarely seen. But I was surprised at the small amount of milk they gave, and the trouble of procuring that little.—The cows were first made fast head and hind legs, then the calf was brought out—and after a great deal of pulling and bunting the milker managed to get from three to six quarts of milk from each cow.—From a herd of 140 cows Mr. Parker obtains only 90 lbs. per week, or an average of 15 2-7 lbs. annually for each cow, while in England and the United States the average produce is as high as 100 lbs.—However, the dairy business is profitable; for Mr. Parker informed me that he obtained 50 cts., per pound for all of his butter, which would give him $2,340 per year, to say nothing of the swine he feeds on his spare milk.

SHEEP.—It is the general opinion that the raising of sheep is a very profitable business, though they have heretofore been grown merely for their mutton, without the least regard to the value of their wool.—Their increase is very rapid, the ewes having lambs at the age of 12 months, and twice a year. Several persons have engaged in the business on Hawaii and Oahu with energy, and some of them have from 1000 to 3000 sheep. Our breeds however, which were originally the Saxon and Merino, imported I believe, by the late William French, Esq. have become sadly deteriorated by in-and-in breeding, and I am happy to have it in my power to state that steps have been taken to regenerate our breed by an importation of fresh stock. Messrs. Hopkins and Moffat have imported some fine Merinos from Australia, and Mr. Thomas Cummins has on the way to the Islands in the "Matanzas," two fine ewes with lamb, and two fine rams of the pure South Down breed, which raise good wool, and are unequalled for their mutton. These sheep are from the celebrated flock of Mr. Mc Intyre, of Albany, N. Y., and the ewes are in lamb to a ram bred by L. G. Morris, Esq., President of the N. Y. State Agricultural Society,

from stock imported from England. A sample of wool from Mr. Cummins' flock was sent to Boston last year for examination, and handed to George W. Bond, Esq., one of our corresponding members, of much experience in the wool business, who reports that such wool in fleeces, washed on the sheep's back, is worth in Boston market 50 cents per pound.

The greatest drawback that we have to encounter in raising sheep, is the loss arising from packs of worthless, half famished curs, that are constantly prowling like so many hordes of wolves in the woods bordering on our best sheep districts, and also from what Mr. Kenway styles, that "more insignificant pack of native pets," that infest every neighborhood of grass houses. The most effectual way of protecting our flocks, I think, is to import some good dogs, and I would suggest the propriety of offering a handsome premium at our next exhibition for the best shepherd's dog. Already we have a countless multitude of dogs, but they are a snarling, cowardly, sheep-stealing pack—a "cross of everything under the sun, having any affinity to the canine race" and fit only to eat strychnine.

SWINE.—The Society since our last meeting has imported two boars and two sows, a cross of the Suffolk and Mackay breeds, esteemed as one of the best of the U. S., and which has taken frequent prizes in New England. These hogs have been placed in the keeping of Capt. John Meek, who has several other English and American breeds of excellent reputation. His swine are very superior, and such as I feel confident would take a premium in any country. Besides these, we have the pure Chinese breed, bred exclusively by the King and Paki, and a new English breed imported since our last meeting by Mr. Janion. The demand for live hogs for exportation to California exceeds the production, and hardly a vessel leaves for San Francisco, that does not carry a deck load of grunters. They are worth 4 to 6 cents per pound on foot, and the business of raising them is within the scope of the natives, and pays well. I see no good reason why every sugar establishment in the Islands, should not fatten a 100 or more of hogs every year from the skimmings, etc., of the boiling house.

The pigs imported by the Society, were a present from Henry A. Pierce, Esq., of Boston, and the freight, etc., were given by Messrs.

Pierce & Brewer, two gentlemen who seem ever ready to advance the agricultural interests of the Islands.

Horses.—Within the last year there has been imported from Sydney, a thorough bred stallion and mare, by Mr. Janion, and from California, an American mare by Mr. Cartwright.

A lively interest has been awakened in the raising of good horses, and our breeds are rapidly improving. The raising of poor horses is a poor business, while that of raising good horses is a good business. To show the value of good horses, I would remark that several colts got by Capt. Meek's Oregon, out of Mr. Cummins' Jenny, have sold for $300 each, and one of these was only a yearling. There are also several fine colts sired by Mr. Thompson's "Admiral," which when grown, will undoubtedly command good prices.

The Society, anxious to carry out the suggestion of the committee on horses, made at our last meeting, instructed me to take the necessary steps for importing a Canadian stallion of the best breed from the United States. Accordingly I wrote to B. P. Johnson, Esq., for information on this subject, and have recently received a reply, in which he says: "The Canadian horse is a very hardy animal, that would do good service in your islands. They are rather under size, very compact, of great powers of endurance, and very easily kept in condition. They are not fancy horses like some of the English breeds—but they are made for service peculiarly, and in that respect are not often excelled. I could probably procure them with a little trouble, that might answer your purposes, at prices for an entire horse of from $150 to $300—though if *great speed* was desired, the price would be much higher—as in this day of progress, a horse that can make his mile in 2.26 or 3 *minutes*, generally commands what is asked; still, of commendable speed and good action I think I could obtain a good horse within the range I have named. For a filley or mare from $75 to $150, according to age and quality. The delivery at Boston would add from $10 to $15 each on these prices."

The freight, food, water, etc. of a horse from Boston to Honolulu, would be at least $200, and besides this, there would be great risk of losing the animal in so long a voyage round Cape Horn. This risk I should consider so great as to render it unwise for the Society to make the attempt, but in this I may be mistaken.

The best mode of breaking horses I consider an important matter, and one which I trust will not be overlooked by our able committee.—I mean breaking them to harness. Instead of handling our colts young and treating them kindly, they are generally left to run wild, until they are two, three, or four years old, then lassoed—mounted by a kanaka wilder than the colt, spurred and run without mercy, and in nine cases out of ten either spoiled or broken down. We need horses for carriages, horses for ploughs, horses for all kinds of agricultural operations, and yet we have hardly one in the Islands than can be trusted at all times and in all places, unless bred and broken in another country.

Mules.—This is a very valuable animal, and is principally used by the natives as a beast of burden to bring their poi and other produce to market. Now and then we see a fine mule 10 or 12 hands high, but generally they are small and inferior. I have taken some pains to ascertain the cost of procuring a good Jack from the United States, and think one could be landed here for about $500. The best breed of mules is raised in Kentucky, where the Jacks are sometimes sixteen and a half hands high, and command a ready sale, if very superior, at prices ranging from $500 to $3000.

Poultry.—We have the Shanghae and several other good breeds, which, when crossed with the native hen, makes a fine hardy fowl.—The pure Shanghae is too delicate to be raised with profit. Mr. H. M. Whitney has taken a good deal of interest in poultry this last year, and now has on the way to the Islands in the "Matanzas" two pairs of black Spanish fowls, which cost in Boston $20 each, and he has also sent for a pair of white dorkings. The raising of chickens and eggs is a very easy and profitable business in theory, but in practice it is a very troublesome and uncertain one, arising from the great tendency of the chickens to die from the eye disease and other afflictions.

Honey Bees.—Mr. Henry A. Pierce, of Boston, one of the committee on the honey bee, and who is so indefatigable in his efforts to furnish us with this very interesting and valuable little insect, has recently shipped us two hives per the "Matanzas," one in the usual

way, and one packed in ice, at a large expense. The activity and generosity of Mr. Pierce is worthy of all commendation.

PREMIUMS.—The Society has expended about $1000 during the last year for prizes awarded at our cur last exhibition, and nearly $500 for premiums for the ensuing exhibition, which latter have not yet been received. Agreeably with the instructions of the Society, I addressed a letter to the Corresponding Secretary of the New York State Agricultural Society, on the subject of premiums generally, and enquiring particularly what it would cost for a fine engraved steel plate diploma. His reply is as follows:

"I enclose you several of our premium lists, from which you will see that we give mainly *money premiums*, leaving it to the choice of the recipients to take *plate* if desired. We also give medals, diplomas, and useful agricultural works, believing that the books we give will prove useful to the farmers—and of this there can be no doubt. My own impression is, that so far as the benefit of the farmer is concerned, *plate and books* are most useful. The plate is a memento of merit *before the family* always, and stimulates to renewed efforts, and aids in training the sons and daughters to emulate in their turn. Still, we find that *men* generally prefer the *money—ladies*, the plate, medals, &c.

"DIPLOMAS.—I send you two which we use, No. 1, is a steel plate we had engraved at a cost of about $250. From this it costs to strike our diplomas, including paper, about 12 1-2 cents each. No. 2 is a lithograph. The original cost of this was about $35 or $40. The impressions from this can be made for about the same price 12 1-2 cents each. I could procure a plate (having the design furnished) for $35, and could have impressions, (if from 1000 to 2000 should be taken) done at from 8 to 10 cents each."

For the financial condition of the Society I must refer you to the Report of the Treasurer, which gives a detailed account of all our receipts and expenditures. The Society has this year added $500 to its permanent investment, making in all the sum of $1,500, secured by mortgages on real estate.

Respectfully submitted,

W. L. LEE, President.

R. G. DAVIS Esq., Treasurer of the Society, next presented his Annual Report, which was accepted. A vote of thanks was passed to the President, for his valuable report, and also to the Treasurer, for the satisfactory manner in which he had discharged his duties, and for the report of the financial affairs of the Society now submitted.—The following is his report:—

To the President and Members of the R. H. Agricultural Society:—

GENTLEMEN:—It will be seen by the accompanying account that we have 124 annual members, an excess of only four over last year. I had hoped at the commencement of the year to have added fifteen or perhaps twenty more to the above number; as I confidently anticipated to retain most of the old members, so that those uniting with us would be an actual increase of our number. I regret to state, however, that many of the old members have declined renewing the subscriptions; so that although we have 42 new subscribers, our list, instead of being considerably increased, continues nearly the same.—It is not easy for me to assign any particular reason for the want of interest in the objects of our association, on the part of some of our former members; as in my opinion, there are few objects among the numerous ones that call for aid in our community, more worthy of a cordial support than a society for the promotion of interests so inseparable from the prosperity of the Islands.

The receipts are $133 44 more than they were last year, although the amount received for interest on Loans is $58 48 less; and as the number of subscriptions is nearly the same, this increase is almost wholly in consequence of the liberal donations of articles sold at auction at the close of the last fair.

No life members have been added during the last year; in fact, there have been no additions to the list since the first year of our organization.

No special amounts have been paid by the Treasurer for premiums, except the sum of $482 38 to James Makee, Esq., by order of the Board; the amount paid for premiums ordered last year having exceeded the sum originally appropriated that much. It was not anticipated by the Board of Managers that the premiums would cost so

large a sum; consequently, this has been an unexpected draw upon the funds of the present year. The premiums have been in my charge since they were received from the United States.

In accordance with the act of June 18th, 1851, I made the required exhibit to His Highness, the Minister of the Interior, in January last, when the amount raised by voluntary subscriptions having reached $500, a like sum was promptly paid from the Government Treasury. On the 6th of April, I loaned on good landed security the sum of $500 for two years. The amount of funded property now belonging to the Society is $1,500,—all drawing the regular rate of interest.

For further information in regard to the receipts and disbursements, I would respectfully refer you to the accompanying account.

RECEIPTS.

Cash from C. R. Bishop, balance of last year,	$101 59
Donations of articles exhibited June 2d, and sold at auction,	161 89
Cash received from the Hawaiian Treasury,	500 00
Amount of duties on books, medals, &c., remitted by the Commissioners of Customs,	36 13
Cash received for interest on 2d loan of $500,	60 00
" " from 124 annual members,	620 00
	$1,479 61

DISBURSEMNTS.

Certificate of annual membership to F. W. Thompson and T. H. Marshall,	$10 00	
Paid for lighting chapel for address,	5 00	
Paid for printing No. 3 of "Transactions,"	306 44	
Paid J. Montgomery balance due on invoice of books from London	8 00	
Paid James Makee, Esq., balance due on books, medals, &c.,	482 38	
Loaned for 2 years on note and mortgage,	500 00	
Paid for Recording mortgage,	3 00	—1,314 82
		$164 79

Yours very truly,
ROBERT G. DAVIS, Treasurer.

The following reports were read in order and accepted:—

Of the Vice President of Kauai, from J. F. B. Marshall.

Of the Committee on Poultry, by E. Whittlesey.

Of the Committee on Sugar, from J. F. B. Marshall.

Of the Committee on Horticulture, by J. Montgomery.

Of the Committee on Coffee, by G. Rhodes.

Of the Committee on Agricultural Implements, by R. Armstrong.

Of the Committee on Horses, by G. P. Judd.

Of the Committee on Swine, by R. J. Hollingsworth.

Of the Committee on Fences, from E. Bailey and R. J. Hollingsworth.

Of the Committee on Sheep, by C. G. Hopkins. Letters were read, also, in regard to the sheep now on the way to the Islands for Mr. Cummins, on board the "Matanzas," showing their pure blood, and also their value for mutton and wool.

Of the Committee on procuring seed from the Sugar Cane, from E. P. Bond, and from B. Pitman, members of the Committee.

Of the Committee on Birds, by L. Severance.

A Committee of three was appointed to nominate Committees on Premiums at the Fair. Messrs. Torbert, W. H. Rice and S. N. Castle were appointed by the President.

A Committee of three was appointed by the President, to receive and examine Essays presented on the subject of Agriculture in the native language. Messrs. Ii, Hall and W. H. Rice were appointed.

On motion, it was Resolved, That any native, on the payment of one dollar, be allowed to exhibit articles at the Fair, and be as eligible for a premium for the best production, as if a member of the Society.

Resolved, That the members of all auxiliary Societies, which pay their funds into the Treasury of this Society, be allowed to exhibit and compete for premiums at the Annual Fair, on the same footing as members of the Parent Society.

The Committee to nominate Committees on Premiums, reported; their report was adopted, and is as follows:

G. M. Weston, B. F. Snow, G. M. Robertson	On Agricultural Productions.
T. Cleghorn, A. B. Bates, E. G. Beckwith,	On Horticultural & Floricultural Productions.
J. H. Wood, T. Metcalf, H. Rhodes,	On Manufactures.
B. Pitman, S. Reynolds, J. Dudoit,	On Stock.

Adjourned to half-past 7 o'clock, P. M., at the Chapel, to hear the Annual Address, by J. Montgomery, Esq.

The Society met at the Chapel at the hour specified. The President took the chair and called the Society to order. A large audience of ladies and gentlemen were present, to whom the President introduced Mr. Montgomery, as the orator of the evening. The following is his address:

ANNUAL ADDRESS.

The task which has devolved on me, of addressing the members of the "Royal Hawaiian Agricultural Society," on this, the 3d Anniversary of our assembling together, would be attended with considerable embarrassment, under any circumstances, and is rendered still more arduous by the necessity which is imposed on me, of following our excellent President, and the two other distinguished gentlemen, who have in the three preceding years of the existence of the Society, so ably discharged that duty; and when I review their addresses and see how very comprehensive they are, and how various the topics which they have discussed, I am forcibly impressed with the conviction that the field of operations which is left open to me, is comparatively limited and circumscribed in its extent. I shall therefore be compelled to solicit some indulgence if, in the course of the remarks I propose to submit to your consideration, I shall feel myself unavoidably compelled to refer to, and perhaps dilate and enlarge upon some of the subjects which have already been touched upon by those who have gone before me.

I have also felt some additional embarrassment in undertaking this duty, because, although tolerably familiar with the science and practice of agriculture, and its lovely and fascinating sister, horticulture, at whose shrine I have ever been an ardent and impassioned votary, I am compelled to confess that all my experience in both these pursuits has been acquired in more northern latitudes, where winter in a rigid form, contributes its valuable aid to the labor of the cultivator, and that I am in comparative ignorance of both the science and practice, as applicable to a tropical region. But feeling as I do, that in a community, so circumscribed in numbers and extent, and so comparatively in infancy in knowledge of agriculture, as this, the land of our adoption, and probably the permanent home of the majority of us,

it is the bounden duty of every individual to contribute to the utmost extent of his abilities and of the information he may possess, to the promotion of the common cause of increasing our national prosperity, by bringing to light the varied resources which bountiful nature has, with no niggard hand, placed within reach, I have consented to discharge a share of that duty, by laying before you such ideas and suggestions as present themselves to my mind, and in its execution I must trust to your indulgence to make all allowance for its inadequacy.

The great and paramount importance of agriculture, as the primary source of all wealth, and the basis of national prosperity is so universally recognized and admitted by all civilized and enlightened nations, that it is unnecessary for me to expatiate upon it. As has been eloquently and truthfully said, by our President, in his excellent address at the inauguration of our Society, "The culture of the soil lies at the bottom of all culture, moral, mental and physical," and it is a truth familiar to us all, that where the treasures of the soil lie neglected and unexplored, there we find the "Savage, whose untutored mind," is as barren and neglected as the forest through which he ranges.—On the other hand do we not find, that in the countries where civilization and refinement have most progressed, agriculture is fostered and cherished as the most agreeable pastime, as well as the most direct and certain means of national advancement and prosperity, on which the welfare of the commercial, monetary, manufacturing and all other important interests mainly depend. Is it not the honest and honorable boast of Great Britain, that however vast is her commerce, ramifying and diffusing its treasures over all civilized and some semi-barbarous lands, and however marvellous and gigantic her manufactures, of which specimens are to be found in every part of the globe, her agriculture is the great foundation, the firm and unflinching support of all her other varied resources; the fulcrum on which they all rest; and sad experience has of late years proved that a serious failure, in even one comparatively unimportant crop, in a portion of that Kingdom, (endeared to me as the land of my birth, and the home of my youth,) produced a shock by which all other interests were for a time partially paralyzed, and which was seriously felt abroad, in the disturbance of the exchanges of other nations.

Again, what has elevated the United States to their exalted position in the scale of nations, attained with a rapidity and steadiness of progress, wholly unparalleled in history, but her agricultural enterprise, carried out by the indomitable energy and perseverance of her sons. It would be an easy task to multiply illustrations, but I aprehend the propositions I have laid down, cannot be controverted.

Is it not then of the most vital importance to us, and is it possible to exaggerate, by any force of language the necessity we are under, isolated, as we are, and suffering as we do, from want of capital, to use all our energies to explore and bring to light the vast amount of wealth, which lies hidden in the rich soil which abounds in many parts of these Islands?

But there are other aspects, besides a pecuniary and fiscal one, in which the culture of the soil presents itself in an attractive form.—From the earliest records of all countries, some of the best and greatest of men have been ardent and zealous cultivators of the soil. In England, practical agriculture has ever been the favorite occupation of the best and worthiest of her aristocracy, and her present Majesty and her Consort are among the most zealous and successful farmers in Great Britain. The immortal patriot who led his countrymen, in achieving the independence of the United States, was as conspicuous and stands out, in almost as bold relief in history, in the capacity of a practical farmer as of a citizen soldier. If we take a review of the mercantile, mannfacturing and professional communities of all countries, to what Goal do we find their Merchant Princes and Millionaires, all striving? Do we not invariably find them retiring to the tangibility of a country residence, and closing their career in the active cultivation of those acres, in the purchase of which they have invested the earnings of their years of toil, and settling down on the peaceful and invigorating enjoyment of rural pursuits, as the final end, and ultimate recompense of their anxious days of successful speculation and adventure?

It is, I think, much to be regretted that more attention has not been paid, and more encouragement given to the cultivation of the many and various valuable and important crops which I trust, through the instrumentality and assistance of our Society, will, ere long, be produced on our hitherto waste lands. When we reflect that in this

group we can command every climate ranging from that in which the "Bee banquets as in a whole year of flowers" to the eternal snow of Mauna Loa, it does seem strange that so few of the many products which might be profitably produced in so extensive a range of climate have been cultivated amongst us. The great value and importance of the culture of the soil, were, as I learn, known to, and appreciated by the great Kamehameha Ist, the Alfred of this Kindom, who devoted much attention and afforded much encouragement to the natives of his day to cultivate such crops as his limited amount of information enabled him to recommend by precept and example. He rewarded the industrious and punished the indolent, and the fish ponds and other still extant traces of his laudable exertions, attest the value of his enterprize and energy. It is not for me to say why those into whose hands have since fallen the control and government of the country, have not appreciated the importance of the example set them, and it was not without regret that I have listened to eulogies pronounced in our Society, on some whose claims bear no comparison to his as encouragers and promoters of agriculture, whilst his higher merits have been entirely overlooked.

In later days, so far as I can ascertain, the culture of the soil of these islands has been little attended to or encouraged, and if I am rightly informed, impediments have actually been thrown in the way of those who have sought to turn the land to good account, whilst on the other hand, large importations of merchandize have been made, without any attempt to produce, from the only available source, the necessary articles of export wherewith to pay for the goods imported, and the natural and inevitable result has followed, in the heavy and oppressive balance of trade against us, which, till more sagacious measures shall be adopted, must go on crippling our means and increasing the inanition under which the National Exchequer has so long suffered.

With the laudable purpose and earnest desire to mitigate, and eventually entirely to remedy this glaring evil, by assisting and encouraging those who have the will united with the means of embarking in the culture of the soil, and thereby to bring into life and activity these many and various means of wealth which had hitherto lain neglected and undeveloped, and from which alone we could hope

to rectify the vitiated condition of the body politic, the Society I have now the honor and gratification of addressing, was, by a few intelligent and enterprising individuals, who saw and felt the bane as well as the antidote, called into existence in 1850, and considering that as yet, it is little else than an experiment on a large scale, I think I may fairly assume that its labors have not been without valuable and important results.

Another laudable purpose which our infant Society had in view, was to diffuse and spread information on the subject of the culture of the soil and its profitable occupation, in all their various phases amongst settlers who reside in remote districts, and so isolated as to be entirely beyond the reach of personal intercourse. To the inexperienced it proposed to point out the unexplored mines of wealth lying hidden in the soil, and to induce them to embark in their culture and development, as the high road at once to individual wealth and national prosperity. It was anticipated too, that if the foreign settler could be persuaded to adopt the means within his reach to raise new products and increase the amount and improve the quality of those already in cultivation, his success would, in course of time, operate as an inducement to the natives, who, with their natural shrewdness would be certain to watch and appreciate the good results of the "Haole's" exertions, and in all probability follow his example, and thereby add his mite to the national capital.

Moreover, it was anticipated, that if the native could be induced to devote himself to the profitable culture of the soil, it might probably conduce to the encouragement of the Kanaka to marry and erect a a separate cottage for himself and his family, and thereby contribute in no small degree, to an improvement in the habits of the people in morality and propriety, both of which are much outraged by the present system of crowding large numbers of both sexes into one small apartment, and also that the rapid decrease of the native population, which has occurred of late years, might be counteracted and arrested in its fatal career.

As a father inducement to efforts which promise so happy and very desirable results, our Society has adopted the system, acted upon in other similar institutions in older countries, by endeavoring to stimulate to exertions, by means of premiums to successful competitors, and

the exhibition of beautiful plate on the table of our show-room, will testify to the extent, which some may consider lavash and extravagant, to which the Society has gone in contributing this additional stimulus to industry and exertion. It is hoped and believed that such an inducement to enterprise, which must be eminently beneficial to themselves and result in advantages of a much more important character, cannot be generally necessary; but, if even a few minds are to be operated on more effectually, by means of a direct reward, in the form of a silver cup or medal, the good so attained, will amply recompense the Society for the large amount invested in premiums.

How far the purposes which the Society had in view in the diffusion of information, have been accomplished, is best evidenced by the valuable essays and reports which have been read before the Society, and printed in its three years transactions, and I may be permitted to say that many of these productions are of much merit, and would do credit to much more mature and extensive institutions.

Whilst it cannot be denied that there are many and serious difficulties, natural as well as artificial, and resulting from the peculiar circumstances in which we find ourselves, in the way of those who hope successfully to cultivate the soil of these islands, there are on the other hand many advantages and inducements which, with proper attention to seasons and circumstances, combined with energy and perseverance will, I am persuaded, render agriculture remunerative, as it is certain to be an agreeable and healthful pursuit. We have in these Islands, land to considerable quantity, equal in fertility to any part of the world; and with a climate unlimited in its range of temperature, what can be wanting but vigorous enterprise to secure successful and remunerative culture, provided always that that enterprise be left free and unfettered? But the cultivator here as well as elsewhere, must make up his mind to a liberal expenditure of both money and patience in the commencement of his career, as without proper precautions and judiciously directed industry, he runs the risk of having his hopes blighted, and the first fruits of his enterprise, fall a prey to the destructive insects which too often commit havoc on the first crop. I think, however, that we have the means in our power, in a great measure at least, to counteract and prevent this catastrophe by taking the proper masures for the destruction of the eggs and larvæ of those

ruthless destroyers. For the information of those who are not aware of the precaution I have alluded to, I may be permitted to explain, that by shallow or skin ploughing of the original grassy surface of the land about brought, for the first time, into cultivation, making a furrow of about 3 inches in depth, or by paring with the spade, and when thoroughly dried by the action of the sun's rays, piling the sods in heaps and burning them to ashes, the eggs of the insects which are always deposited in or at the roots of the grass and other weeds which naturally covers the surface will be destroyed, and the pernicious and devastating incursions of the caterpillars and other grubs, which would have sprung from the eggs, effectually prevented. Moreover, the seeds of the weeds which lie dormant in the soil, and which would certainly require vast labor and time to exterminate by any other process, will thus be also effectually eradicated, and the ashes are first rate manure. Having myself adopted the plan I have ventured to recommend to you, and with entire success, I am enabled to speak of it with confidence, and strongly to recommend its adoption. The first year's culture will not perhaps entirely eradicate the worms, but they will appear in very insignificant numbers, easily destroyed by a little attention to hand picking; but in the third year, if the system be carefully attended to, the ground will be found to be entirely free from them. I find moreover, (as I had been informed by others) that the caterpillars are local in their habits, and do not travel from place to place like the locust, and that the moth or butterfly which springs from them always returns with a strange instinct to deposit its eggs, only on its own original birthplace; at least such is my experience. Those who have commenced to cultivate lands, already in partial cultivation, on which there is no sod that can be burned, will find another equally effective, though more tedious remedy for the caterpillar, by carefully attending to the entire eradication, by hoeing or harrowing, of all weeds, and avoiding for two seasons the culture of all the crops on which the insects feed, so that by the slower but not less effectual process of starvation they will entirely disappear. I am enabled from my own experience to testify to the entire efficacy of this remedy also, on the two acres which form my garden, all the portion of which, cultivated and attended to as I have endeavored to describe, are now in this, the third year of my occupancy, entirely free from all these marauders, and I am informed that such is the experience of other parties on Kauai and elswhere who

have adopted the same means. I have gone more into detail on this point than some may consider warrantable in an address, but the vast importance of the subject of insects, must be my apology, and if I shall be so fortunate as to prevail even upon one person to adopt my suggestions, and thereby secure the successful culture of even one additional acre of waste land, I shall consider you and myself amply recompensed for the time devoted to it.

Another important and primary obstacle presented by nature, to the successful culture of the soil, in those parts of the islands subjected to long periodical droughts, is the aridity and baking of the earth into a firm body by the too powerful action of the sun's rays. Having learned in the old country, the great value of the deep culture of the soil, as a remedy for this and other evils, I have adopted it here on a small scale and have found it effectual, beyond my expectations. The earth where there is a sufficient depth for the purpose, must be broken up at least 2 1-2 feet deep, and carefully pulverized, after which it will retain throughout many months of continued drought, sufficient moisture brought up from below and held in the soil by capillary attraction, to nourish any ordinary crop, without the necessity of expensive hand watering, or surface irrigation, the value of which latter I consider very questionable, as the soil, saturated with a stream of water in summer and suddenly dried up by a vertical sun, becomes so baked and consolidated as to be almost impervious to the roots of any ordinary plants; and for this reason I have abandoned it. I am aware that the remedy I have suggested is obnoxious to the objection of being attended with too much labor and expense in this country where labor is so expensive and difficult to procure, but to this I would reply that it will be amply repaid by the vastly increased amount and improved quality of produce which land so cultivated will yield and that the expense and trouble attendant upon hand-watering and irrigation, will be entirely avoided, and the culture of the land, for all time to come, will be vastly facilitated, as it will not again bake and consolidate. On all land underlaid by stratum of black sand, the remedy I have suggested will be quite useless, and it is only where there is a clay or grey sand subsoil that it will prove effectual.

The difficulty of procuring an adequate amount of labor on these

islands at a remunerative price, is another great obstacle to farming here; but as that subject has already undergone ample discussion by those more competent to the task than myself, I shall merely say that so far as I can ascertain, the evil influence of the California excitement is steadily subsiding, and that as the natives begin to find that dollars are not so liberally squandered as they were three years ago, they show indications of returning to their sober senses, and accepting fair and adequate remuneration for their labor. The Chinese Coolies have given general satisfaction on the estates where they have been employed, and have assisted in bringing down the exorbitant notions of the natives to a more moderate scale, and I think it is to be regretted that we have no greater facilities for their further importation.

The absence of good roads and the consequent difficulty of bringing the produce of lands in the interior of the islands to market, must continue to be a serious obstacle to profitable farming, and I shall watch with anxiety at the present meeting for information on that important subject, and hope to hear that some effectual progress has been made in "mending our ways."

But perhaps the greatest and most paralyzing of all difficulties which we have to contend with here, is the want of sufficient capital, an abundance of which would, in a great measure enable us to overcome most of the other impediments to our progress; and so long as we are compelled to struggle against and labor under the incubus of a heavy balance of trade in the large surplus of imports over our exports, and at the same time prevented by impolitic restrictions and legal disabilities; from rendering vast tracts of land now lying utterly waste, available for the culture of a crop, for which, as I hope to prove, they are admirably adapted, and from which enormous returns might be received; and so long as our home market for our produce is limited and curtailed, because of the diminished number of ships which visit our harbor, in consequence of certain charges, which yield no equivalent in their paltry amount, for the large sums they cause to be withheld from us, I confess I cannot discover any mode of extrication from the dilemma in which our own folly has placed us.

The great importance of agriculture as the primary and direct

source of all individual as well as national wealth, as I have before remarked, entitles us to demand as of right, not only the total abolition of all restrictions to, and impediments in the way of the extensive culture and conversion to sources of direct profit of all those productions, for which the soil and climate of these islands may be well adapted, but also, that those to whom the government of the country is entrusted, will foster and cherish them with that paternal solicitude which is their bounden duty, divested of all fanatical prejudice and narrow-minded sectarianism. Nay more, when we consider the many and serious difficulties I have before alluded to, which nature and our peculiar circumstances, have thrown across the path of the residents of these islands, and which, it cannot be denied, renders farming a hazardous and difficult enterprize; it does seem to me, that the necessity which is imposed on the Legislature and Government, to foster and assist those who possess the nerve and capital to embark in that pursuit, which alone can raise us to an independent position, is here greatly augmented, and it the more behooves both to avoid with the utmost caution, any act which can tend to restrict or embarrass the man who is willing to undertake the hazardous work of endeavoring to explore and bring to light any of these hitherto undeveloped sources of that capital, so much required, yet so lamentably deficient among us. Nothing short of the clearest and most conclusive evidence amounting to actual demonstration, (drawn from sources free from all taint and suspicion of fanaticism and prejudice,) of certain danger to the welfare of the nation, can warrant those who preside over the destinies of a young and struggling country, in restricting or preventing the culture and conversion to sources of wealth, of any produce of our soil, from which a considerable amount of profit can be extracted, every dollar of which, will be just so much added to the solid capital of the country.

One of the most important incentives to agricultural enterprizes which it is in the power of any government to furnish or at least to encourage, is an abundant and remunerative home market, and as I have before remarked, that has not heretofore been found here, to the extent of which I think it might and ought to be afforded.

I hold the opinion in common with those among us whose opinion I

most respect, that if our ports were baptized by the magical and fascinating name of "Free Ports," following even at the eleventh hour in the wake of Valparaiso, Tahiti, Hong Kong, Singapore, Sydney and other ports of the Pacific, the amount we should receive from the greatly increased number of ships which would enter our harbor, and the large amount of merchandize of which the new warehouses (which would rise, like magic on our hitherto neglected and barren reef,) would be the receptacles, could vastly more than compensate for the paltry amount now drawn from the harbor dues levied under the present suicidal system. Our geographical position, which has placed us in such close proximity to so many great markets, for the manufactures of the Western World, combined with the establishment of several lines of steam-ships now in actual progress, would if we were unfettered from these obstructive charges, ensure the establishment of this port as the great entrepot of the North Pacific, and I anticipate with unfeigned delight, the erection of wharves and spacious stores and ware-houses at no distant date, as the depositories of valuable cargoes, and the concomitant expenditure amongst us of large sums of money, consequent on an increased amount of shipping employed in bringing and taking away those goods, as well as large quantities of our wines and other products to other adjacent markets. When that much to be desired period shall have arrived, we shall no longer be compelled to witness day by day, the depressing and melancholy spectacle, presented to our view for nearly half of our time, in the total absence of all square rigged vessels, from our safe and commodious harbor. What else, I would ask, but a conviction of the truth of the view I have taken of the subject, has induced the places I have above enumerated to abolish these impolitic imposts. If port charges were beneficial or justifiable it is not probable that these places would, one after the other, have abandoned them; and if they are not beneficial or justifiable, are we warranted in retaining them? Are we so much wiser or richer than they, that we can afford to be obstinate? I rejoice to see the first attempt made during the present session of our Legislature, for the total abolition of all harbor dues, which had been previously relaxed by the admission of all passenger ships, last session, and I entertain a strong hope that as the matter

has been brought under public discussion, and as the arguments in favor of the total ablition, so vastly preponderate, and must bring conviction to every unprejudiced mind, the next session of the Legislature will achieve our emancipation from an impost which has too long retarded our national advancement. The great principles of free trade are now recognized as paramount by a majority of the most enlighted nations of the world, who are at the present moment remodeling their laws and institutions in conformity with them, and I trust we shall not stand still, while the rest of the world is bent upon an onward progress. Commerce, free and unrestricted, is the most available channel, through which the means of developing our internal resources can be attained. An abundant and constant supply of shipping in our ports, will create an equally great and abundant demand for our agricultural productions. And thus rapidly increase our wealth and capital, and encourage us to greater, because more remunerative industry. Agriculture can never be prosperous or remunerative where markets are uncertain, fluctuating or periodical, and if it shall please Providence to enlighten our Legislature so as to secure their adoption of the great principles now triumphant in other lands, so far as they are suitable to our condition and circumstances, we shall no longer be so utterly dependant upon our whaling friends or so deserted and melancholy through one-half of the year. It is perhaps known to the majority of those whom I have the honor to address, that the port of Valparaiso owes its wealth and importance, and has risen to its present eminence as a commercial city, solely as an entrepot, a great storehouse for supply of other markets on the Western Coast of America, its home demand for the enormous amount of merchandize piled in its stupendous store houses being very insignificant, and it is plain enough to my mind, that our position relatively to other great markets is greatly superior to that of Valparaiso.

It is not my purpose, nor is it within the scope of my present duty, to allude, in detail, to the various crops adapted to our soil and climate, but as I have before alluded pointedly to a restriction on the culture of one crop, for the purpose of export, I may be allowed to state my views, (which are in common with a large portion of the

community) on the subject of the culture of the grape vine, and the policy of the manufacture of wine for export in these islands. Nor am I deterred from laying these views before you, by the fact that they are not in unision with the votes of the majority of an "august assembly in another place" on a late occasion; believing as I honestly do that a large portion of that majority were grossly misled, and will, when next the matter shall be brought before them, rectify the blunder they have committed.

The surface of these Islands is composed of volcanic matter, more or less disintegrated and decomposed and resembling in its texture and chemical qualities those countries where the grape has for many ages been most extensively cultivated, and where wines of the highest quality are largely manufactured and exported.—Should this statement be questioned, I cannot here afford space to cite numerous authorities, but shall content myself with a quotation from the last edition of McCulloch's Commercial Dictionary, a work collated with enormous pains from the best and most reliable sources of information on the various subjects it discusses. He says, "The grape vine succeeds extremely well in volcanic countries. The best wines of Italy are produced in the neighborhood of Vesuvius. The famous Tokay wine is also made in a volcanic district, so are several of the French wines. Hermitage is grown among the debris of granite rocks."

I have seen it objected by somebody, who assumes the modest title of "Common Sense" that we are "too far south" for the successful culture of the vine, I presume because of our too high temperature. I find however, McCulloch states that "the limits within which the grape vine is cultivated in the northern hemisphere of the old world, vary from 15 degrees to 48 or 52, and if McCulloch be rightly informed, that they are grown so far south as latitude 15, I presume that I am safe in stating they will flourish in 22 north. But it is an established fact that the grape does grow luxuriantly and produce abundantly in parts of these islands. It is threfore quite superflous to waste time in combating such a frivolous and untenable objection as this. Moreover I am told, wine of excellent quality, has lately been made in these islands, and I think under these circumstances, I may fairly assume that the grape can be successfully and profitably culti-

vated here for wine making for export, on thousands of acres of lands such as those described by Mr. McCulloch. In 1848 I visited some of the vineyards of Port Philip, in Australia, established by Swiss and German settlers and found them all located on stony hill sides, usually facing the east or south-east, such as abound here, and on soil exactly analogous to ours. I am happy to be enabled to quote on this point so eminent an authority as the Hon. Luther Severance, who says in his address read before this Society in 1851, that "we may look forward to the time when the valleys of these islands shall be cultivated like gardens, and *terraced mountain sides with vineyards* like those of Madeira, Vesuvius and Etna."

That the manufacture of wine for export is a source of great revenue, is proved by abundant facts. I find by the last report on the census of California that many of the lately settled districts have already yielded large amounts of wine; for instance, Los Angelos and Santa Barbara have yielded for the year 1852, 72,462 gallons of wine, producing $146,924. I also find from official statements from Australia, that in 1845 there were 611 acres of vineyards producing 54,996 gallons wine, whilst in 1850 the amount of land under wine culture had increased to 1,069 acres, producing 111,085 gallons. Again I find it stated in "Hunt's Merchants Magazine" that the new German vineyards in Missouri are progressing rapidly, and that there are already 200 acres planted at the town of Hermanes, which in two years are calculated to yield 25,000 gallons of wine and to increase to 50,000 in good seasons.

An acre of land in vines, is reckoned to be worth $1000. How many hundreds nay thousands of acres of waste land might be converted into smiling vineyards, yielding their tens of thousands yearly, to the hitherto meagre produce of our islands, and by so much increasing our actual capital. Are we then, I may be permitted to ask, in a position to reject on any but the most conclusive evidence of some direct and formidable injury to result from it, a source of national wealth so vastly important and at the same time, so easily attainable as this? If an acre of vines be worth $1000 per annum, how great is the culpable responsibility of those who have hitherto obstructed their culture.

This is not exactly the fitting occasion for the discussion of the "main" objections to wine growing, preferred by those who view the subject through a distorted and unhealthy medium, and who erroneously assume that use must result in abuse, viz: that it would conduce to intoxication and consequent demoralization of the people. I shall content myself on the present occasion by stating that the simple historical and statistical fact, within the knowledge of all well informed men, that all the wine-growing countries of Europe are eminently and invariably conspicuous and remarkable for their total absence of intoxication in every form, and that they are beyond all comparison the most temperate countries in Europe. Perhaps it will be objected to by some who dissent from me, that I have made the present address the vehicle of a political disquisition, to which I shall reply: that the connection of all the topics I have introduced, and their importance in relation to the subject of agriculture, are so dear and inseparable, that I could not, without a dereliction of duty, which is not my wont, avoid the allusion I have made to them.

I beg leave to notice another plant of a different kind, the culture of which from my own experience, I would gladly see more generally adopted. I mean the "Papaya" (the Carica Papaya of Linnœus) which is raised with great facility from the seeds found in the pulp of the fruit, and will flourish on any reasonably good soil. The fruit is an excellent article of home consumption for tarts, and also used as a vegetable, and is of great value as good and nuitritious food for poultry and swine. They may be planted at 6 to 8 feet apart each way and will bear within 12 months. Some which I have grown have yielded me over 100 pounds of fruit each, and as an acre will contain 800, we shall have the enormous amount of 40 tons of fruit to the single acre. Besides, a full crop of Pumpkins can be had on the surface of the Papaya land, as the one will benefit the other, the Papaya by his graceful top affording a gentle shelter to the Pumpkin from the too powerful action of the sun, whilst the Pumkin will freely reciprocate, by covering with its vines the surface of the ground, and preventing the too rapid evaporation of the moisture requisite for the full development of both. The Papaya, too, possesses the valuable quality of rendering tough animal food, perfectly tender, by simply

suspending it for a few hours amongst the leaves, the exhalation from which has a specific influence on animal fibre.

It is an admitted fact, that the demand for hogs and poultry, has always been very inadequately supplied here, and I know of no way by which that defect can be so readily and effectually remedied, as by the method I have above suggested. On a property in which I have some interest in Kauai, we are adopting it on a large scale, and I recommend others to follow our example.

Even at the risk of being tedious, I cannot omit referring to another important crop which I hope to see generally cultivated among us. I allude to rice, which has now become almost indispensable to the numerous Chinamen who form no unimportant part of our population, and I trust soon to be increased by fresh arrivals.

That rice of excellent quality can be raised on these islands will scarcely be denied, and the fact has been brought to the test of experiment by Mr. Webster, of Koolau, who has this season grown excellent Paddy, and informs me that the operation of converting it into rice by freeing it from the husk, is one of easy accomplishment by simple and cheap machinery. In Wailua, on Kauai, they are experimenting on its culture, and I would solicit many others to try the experiment. We have been sending away from ten to twelve thousand dollars yearly of our hard cash, to purchase this one article, which can with ease be raised at home, and I hope ere long to find this one drain on our exhausted means effectually terminated by the home grown article.

The beautiful specimens of wheat and barley from Maui, exhibited in our Show-room, give abundant proof that the means to supply the home demand for flour by home grown grain, are also within our reach, and when it is recollected that about $75,000 are yearly drained from our meagre capital, in the purchase of this article, we cannot, colleetively and individually, devote too much attention to a department so vitally important. I learn with pleasure that the cultivation of wheat is creeping into Hawaii, where there are thousands of acres admirably adapted for its successful and profitable culture.

That we can grow corn, equal in quality to any part of the world is proved already, and further illustrated by the sample now on exhibition in the Show-room. We send away between two and three

thousand dollars yearly in the purchase of corn meal and grain, every cent of which we could keep at home by a home grown supply.

No plant is more congenial both to our soil and climate than tobacco, or more easily capable of being made an important and valuable article of export, and yet, strange to say, its culture has hitherto been so much neglected, that instead of exporting several thousands of dollars worth yearly, we actually export not tobacco or cigars, but what is still more valuable to us, in the shape of some $30,000, to pay for its purchase for our own consumption. I learn from a gentleman from Kauai, now present, who has visited the plantations of Messrs. Opitz and Gruben, within a few days, that notwithstanding the unusual drought of the season, they have good crops of tobacco of first quality, equal in flavor to the boasted produce on Cuba; and that in all probability over half a million of prime cigars will be turned out this season, and that they anticipate making some two millions next season. San Francisco and Australia will afford a ready and remunerative market, for all the good cigars we can raise here, and as precautions have been taken, to avoid in future the errors which admittedly made last year's cigars inferior in quality, I trust to see this important branch of agricultural industry fully and profitably developed.

I find that in the articles of flour, corn, rice tobacco and wine, all of which we can, by industry and perseverance raise on these islands, we send abroad upwards of $125,000 yearly, and that too, in hard cash, for be it remembered, we have no product to give in exchange for any of them, and if "a penny saved is a penny gained," shall we not unite as one man, to encourage and assist those enterprising individuals, who have embarked in their home culture?

The articles of wine and cigars, ought to be looked forward to as articles of future export, second to none, and exceeding in amount the two great staples of sugar and coffee, both of which we learn from the able, luminous and comprehensive report of our President this morning, are in a prosperous and promising condition. That excellent and very satisfactory report, is as gratifying as it is instructive, as we learn from it that all the various interests connected with the culture of the soil, are recovering from the paralyzing effects of the disasters in former years. Its comprehensiveness, touching as it

does, on every branch, renders it superfluous for me to allude to them, and it cannot be denied that our Society has been in some degree accessory to this gratifying improvement in the condition of our most important interests.

The labors and duties of a properly conceived and efficiently conducted Agricultural Society are not confined to ploughing, sowing and reaping. To foster and encourage all interests connected with the occupation and culture of the soil, and to unite with them all those branches of industry from which they draw nourishment and support, is the peculiar province of our Society. Agriculture and commerce are, as it were *Siamese twins*, so vitally bound together, and inseparably united that it is impossible to sever them without the destruction of both. They are the right and left legs of a nation. They must move in concert. You cannot advance the one while you cripple the other, and if one be paralyzed by impolitic restriction, or any other cause which impedes its progress in the march of prosperity and advancement, the other will most assuredly wane and decay. It is only by a union of all interests, commercial, agricultural, pastoral and manufacturing, moving in unison, free and unfettered, and guided by the sound and undeviating principles of political economy (a science in which all who aspire to govern well, ought to have some knowledge) divested of all "isms" and "scisms," and freed from the rubbish of antiquated prejudices and narrow minded bias, that we can hope or aspire to attain to that exalted position which is, I am convinced, the earnest wish of one and all who hear me, and to which, under enlightened councils and sagacious management, these islands are capable of attaining. Our geographical position, as I have already said, points us out as the emporium and entrepot of the North Pacific, and nothing but our own indiscretion can retard our progress to that much to be desired consummation, and no one will doubt that this Society can render much valuable assistance in achieving the great end.

The rapid strides made in the commerce of the Pacific in the last few years, and which is destined to a great and speedy increase, has turned the eyes of the old world towards us, and has put all other ports and places into which it ramifies and extends, on the alert, whilst we seem as yet hardly awakened from our stupor, or aware of

the great fact that all the world is going ahead, whilst we, if not actually retrograding, (and the doings of some of our public bodies of late would indicate that we are tending towards the "dark ages") have not yet taken our place in the ranks, in the onward march of progress. Unless we desire to be left "high and dry," whilst our neighbors are proudly floating on the flood tide of prosperity, we ought to be up and doing, lest by an adherence to obsolete ideas utterly unfitted for the era in which we live, we shall find ourselves "shelved" and those advantages and means of improvement which we have been incapable of appreciating, availed of by some more enlightened and more fortunate community.

Is it not a source of deep regret that we should be so entirely dependent for our means of wealth, and a home market for our produce, on the periodical visits of whale ships, whilst one-half the year our commodious basin is unoccupied, and our streets and stores almost entirely deserted? In the course of nature, whales must become diminished by the enormous mortality to which they are constantly subject, and when the day shall arrive, as come it must, when the enterprising men of New England shall find the whaling grounds of the North Pacific unremunerative, and their ships shall cease to enter our harbors, we shall find ourselves entirely without customers or trade, and doomed to fall back into the primitive condition of a fishing village, unless in the mean time we shall have availed ourselves of some new source of wealth, by encouraging other interests to visit us, and send ships and cargoes which now shun us, and I fear will, under our present system, continue to do so. Ere long I earnestly hope to see our inter-island intercourse facilitated by steam or Ericson ships, which will collect and carry from every nook and corner of the several islands, all crops which can be raised upon them, a large proportion of which is now lost because of the want of means to carry it to market, and when the day shall arrive when merchant ships shall float in our harbors as they do in Valparaiso, at all seasons, and when the lines of steamers about to ply between the great Continents of America and Asia and the rapidly advancing British Colonies of Australia, shall pay us their periodical and regular visits, we shall no longer have to complain of want of demand for every variety of product which our climate is capable of yielding in such teeming abundance, and from which the farmer and gardener will both draw ample

renumeration for their labors. Steam communication will enable us to supply the markets of California with oranges, bananas and other fruits for which hitherto no market has been found, and which being in such vast demand there, will yield us an ample return for the labor and capital bestowed on their culture. A great influx of new settlers and capital will necessarily result from a more liberal policy, and so far increase our home market.

In my mind all this desirable state of matters is within our reach, and may be atttained if we shall exert ourselves to attain it. Let us collectively then, as a practical Society, and each of us within his own proper sphere, and to the utmost of his individual means and opportunity, endeavor to achieve so desirable and all-important an end, in advancing the common interest of our common country; let us unite as one man to attain a consummation so devoutly to be wished, and where there is unity of purpose there will not be wanting a unity of means to improve those advantages which all of us possess in various degrees, and which have so long been permitted to lie idle and neglected, and when the day shall arrive when we shall have attained to the realization of what I have feebly attempted to foreshadow, we shall have the happiness to see our little islands the fertile and prosperous land for which kind Nature seems to have destined them.

On motion of Rev. S. C. Damon, the thanks of the Society were tendered to Mr. Montgomery, for his interesting and instructive address.

On motion of Dr. Newcomb, a copy of the address was requested for publication.

Adjourned, to meet at the Court House, to attend the Fair.

Wednesday, June 8th.

The Society met at noon, and the several committees proceeded to examine the various articles presented for exhibition, pertaining to their respective departments. It was remarked that, in consequence of the prevalence of the sickness in Honolulu, there were fewer articles exhibited than at the last fair,—some were prevented from sending in their productions by the sickness of their people.

The exhibition remained open during the day and evening, and was attended by a large proportion of the residents of Honolulu. In the evening, the prizes awarded last year were distributed, consisting of silver cups, medals and books, to the value of about $900.

At 8 o'clock, P. M., a sale at auction took place, of articles exhibited, at which F. W. Thompson, Esq., officiated, with his usual spirit and success. The sales amounted to between $400 and $500; after which the Society adjourned, to meet at the chapel.

Thursday, June 9th.

Met at the chapel, and proceeded to the hearing of Reports of standing committees. The following were read and accepted.

Of the Committee on Statistics, by C. R. Bishop.

Of the Committee on Tanning, by J. Hardy.

The reading of Reports of standing committees was suspended, to hear the Reports of the Committees on Premiums, which were read and adopted.

Report on Agricultural Products.

The undersigned, Judges of agricultural products, at the Fair of the Royal Hawaiian Agricultural Society, held this 8th day of June, 1853, beg leave to offer the following Report.

The show of the agricultural products this year falls short of that of last year, as regards the variety and quantity of articles exhibited; but, in point of quality, the articles shown this year, with few exceptions, surpass those hitherto presented.

Sugar.—The samples of sugar are quite numerous, and we have had more difficulty in deciding on the rival claims of the several competitors in this article than in any other. Being of opinion that the premiums offered by the Society for sugar, are intended for *raw* (or muscovado) sugar only, we consider the best sample from the Koloa plantation, which we are informed was refined by the use of animal charcoal, as not coming within the rules regulating the distribution of premiums. At the same time, in the exercise of that discretion with which we believe ourselves invested, we recommend that a distinct premium be granted by the Society, to Dr. R. W. Wood, for the beautiful sample of refined sugar above referred to; and that, hereafter, if

the Society think it desirable, separate premiums should be offered for raw and refined sugars, respectively.

We award the first premium for sugar to L. L. Torbert, of Honuaula, and the second to H. A. Pierce & Co. of Lihue.

We feel called upon to mention, as worthy of particular notice, the excellent samples exhibited from the plantations of Mr. Reynolds and of Mr. Judd, respectively. The former is a really marketable article, while the latter does not appear to as good advantage as it might do. The specimen from Lihue, which carries off the second prize, is a handsome article, and was taken indiscriminately from a whole cargo.

SYRUP.—We award the prize for Syrup to L. L. Torbert of Honuaula. There are but two competitors for this prize.

COFFEE.—To our surprise, but one sample of coffee is presented this year, that of Mr. B. Pitman, of Hilo. It is of excellent quality, and takes the premium.

WHEAT.—There is no competitor for the first premium in wheat, but we are of opinion that H. J. G. Croswell of East Maui, is entitled to the second prize, which we award him accordingly. Several fair samples of wheat in the ear are presented.

CORN.—We award the first premium in corn, to the Rev. J. S. Emerson of Waialua, and the second to Lieut Reynolds, of Kauai.—The corn exhibited by Mr. Emerson is very fine, and we take pleasure in noticing several samples of fair quality, from other parties.

OATS.—No competitor for the prize. A fair specimen of oats in the ear is exhibited by John Smith, of East Maui.

BARLEY.—We award the premium for Barley to Mr. Hollingsworth, of Ewa, who presents samples of two different kinds. Specimens of Barley in the ear are exhibited from Maui.

ARROW-ROOT.—There are three competitors for this prize, and the specimens exhibited are all choice. We award the premium to the Rev. C. B. Andrews, of Molokai.

IRISH POTATOES.—Only three samples are exhibited; two from East Maui and one from Ewa. We award the premium to G. D. Gilman & Co., of Lahaina.

SWEET POTATOES.—We award this premium to Kalolohe, of Honolulu. Numerous fair specimens are shown.

KALO.—We award this premium to H. Kaahalama, of Kealakekua. Several fine specimens are shown by A. Paki and others. We recommend that, hereafter the premium be offered for ten heads, instead of twenty.

BUTTER.—There is quite a falling off in the number of competitors this year, from that of last. We award the premium to the Rev. C. B. Andrews, of Molokai.

CHEESE.—None of the specimens exhibited are first rate. The best is that of Mrs. Whitney, of Kauai, to whom we award the premium.

TOBACCO.—There is but one specimen of Tobacco presented, that of Messrs. Archer & Gruben, of Kauai. It is of very superior quality, and well deserves the premium.

In addition to the above, we take great pleasure in noticing specimens of several articles, for which no premiums have been offered, among which are the following, viz:

ONIONS.—By L. L. Torbert, the largest and finest we have ever seen on these islands.

BEANS.—Several good samples, by Mr. Hollingsworth, Mr. Rice, of Punahou and Capt. Adams.

CORN MEAL.—Good specimens by Messrs. J. Robinson & Co., and Mr. Hollingsworth.

PADDY.—A good sample, by Mr. Webster, of Kaalaea.

We would recommend that in future, distinct premiums be offered for most of these articles.

We cannot close our report without mentioning, with admiration, the Pie Melon Preserve, presented by Mrs. John Ladd; the marmalade made from oranges and papayas, respectively, by Mrs. Holdsworth, and the Strawberry Jelly of Mrs. Gilmore.

We would recommend to parties competing for premiums at the Society's Fairs, hereafter, that they pay particular attention to the *quantities* required to be presented, in order to bring their articles within the regulations.

All of which is respectfully submitted.

D. M. WESTON,
G. M. ROBERTSON,
B. F. SNOW.

REPORT OF THE COMMITTEE ON PREMIUMS, HORTICULTURE AND FLORICULTURE.

GENTLEMEN:—Your Committee on Horticulture beg leave to report that the department assigned to them for awarding premiums include Flowers, Fruits, Garden Vegetables, Grapes, Dried Figs and Raisins.

Your Committee believe that there is no better test of the refinement of a people, than their progress in this department. A cultivated taste cannot spring up in a desert, nor among weeds and brambles.—He who loves the beautiful, will dwell if possible, among flowers and fountains. A man of refined taste will love to see his table loaded with a profusion of his Maker's bounties, and they will have an additional relish, if grown in his own garden and nurtured by his own hand.

We believe that your Society may do much towards creating a public sentiment in favor of this delightful pursuit. We hope the day is not far distant when there shall not be a house in Hawaii nei without its garden; when, instead of half a dozen competitors for prizes, your committee will have to spend the whole day in awarding prizes, by reason of the profusion of fruits and flowers; when every lady may cull her own boquets and spread her table with the fruits which her hands have reared.

Of the flowers, your committee only regret that from the many successful florists of our city, the contributions were no more numerous. There were but few competitors, but the choice collection of flowers exhibited, and the pleasing variety, numbering from one garden more than sixty varieties, show that there is abundant encouragement for those who are willing to devote a little time to this delightful pursuit; and we could not but feel how true it is of Hawaii nei, that,

> "In all seasons,
> Flowers expand their light and soul-like wings,
> Teaching us, by most convincing reasons,
> How near akin they are to human things."

The Society are under many obligations to those who contributed so largely to the attractions of the Fair, by their beautiful boquets.—We noticed contributions from Mrs. John Ladd, Mrs. Chas. R. Bishop, Mr. Montgomery and from Mr. Janion's garden, all of which exhibited

great taste in the arrangement, and all were worthy of a premium.—Mrs. Penhallow exhibited a curious *lusus naturæ*, in the form of a Lilac, with beautifully variegated leaves, and a very fine Thumberga. We also noticed a splendid native plant, exhibited by A. Paki, which suggested to us to recommend to the florists of the islands, to pay more attention to the cultivation of indigenous plants.

A very vigorous Osage Orange Tree was exhibited by Mr. H. M. Whitney, and we hope to see, before many years, our yards and gardens enclosed with hedges, of this beautiful plant. We cannot fail to speak of the splendid Water Lily exhibited by Mrs. Judd, and introduced into the islands by Dr. Judd, from Havana, in 1850: and the beautiful German Asters in the prize boquet of Mrs. Hillebrand.

Your committee have awarded premiums as follows:

FLOWERS.—1st premium,	greatest variety,	Mrs. Judd.
2d "	boquet,	Mrs. Hillebrand.
FRUITS.—1st "	- - -	Capt. Adams.
2d "	- - - -	Dr. Judd.
VEGETABLES.—1st "	- - - -	Capt. Adams.
2d "	- - - -	J. Montgomery.
GRAPES.—premium,	- - - -	Wm. Ap. Jones.
RAISINS, "	- - - -	Mrs. Whitney of Kauai.

No specimens of Dried Figs were exhibited. Your committee would therefore recommend that the premium offered for this article, be awarded to A. Paki, for very superior fresh figs exhibited by him. They would also recommend that a premium of one dollar each, be awarded to S. M. Kamakau and to Kalolohe, for very fine Sweet Potatoes, the latter having raised his in one of the driest parts of our city.

Your committee noticed many articles for which premiums are not offered, among which were fine peaches, exhibited by J. Robinson; papayas, by J. Booth; tamarinds, by Mrs Whitney and J. Booth; very superior squashes, by Mr. Hollingsworth and Mr. Rice; bread-fruit, by Wm. Gilman; a very curious banana, called the mummy banana, which flowers, and developes its fruit within the stalk, exhibited by Kapeau; some beautiful gold fish, which are fine ornaments for our gardens, by Samsing, and other articles which we have not space to enumerate.

In conclusion, your committee venture to recommend that a premium of —— be offered for the garden, not to exceed —— acres,

which shall contain the greatest variety of vigorous vegetables, fruit trees and flowers, the number to be specified in the application. and to be certified to by the written certificates of three disinterested persons. They would also recommend that a prize of —— dollars be offered to the individual who shall, within one year, bring into successful cultivation, the greatest variety of vegetables, fruits and flowers, not before grown upon the islands, the number of varieties not to be less than ——.

All of which is respectfully submitted.

T. CLEGHORN,
A. B. BATES,
E. G. BECKWITH.

REPORT OF THE COMMITTEE ON MANUFACTURES.

Mr. President and Gentlemen of the R. H. Agricultural Society:

Your committee, to whom was assigned the duty of awarding premiums for the best specimens of Hawaiian manufacture would submit the following report.

The articles offered for premiums in this department for variety and quality compare favorably with those exhibited last year, yet it is a matter of regret, considering the importance of this branch of industry, that our infant Kingdom and infant Society, render our labors in this respect so light; the amount of manufactures being very limited, and the number of competitors quite as much so. Still among the very creditable display of stock, agricultural, and horticultural specimens exhibited, your committee are gratified to find the germ of manufacture, and would award as follows:

SALT.—From Puuloa, best exhibited, to C. W. Vincent.

The superior specimens of salt from these works, together with the amount which your Society are aware is turned out from them, show what may be done in this branch of domestic manufacture.

SOLE AND UPPER LEATHERS.—Best specimens from Hilo, exhibited by B. Pitman.

The leather exhibited exceeds both in variety and quality that of any previous year—the upper leathers are well tanned and are on the whole an improvement upon the past, although your committee are of the opinion there is yet much room for improvement in the finish of all the upper leathers exhibited, which improvement must be made before our leather can compete with foreign even in our own market.

Your committee noticed with pleasure some very fine specimens of Hats exhibited by Mr. J. F. B. Marshall, and made at Waimea, Kauai, for which they are not aware any premium was offered, but which they think are not the less deserving, especially as they were sold at from three to five dollars each, for the benefit of the Society.

LAMP MATS of the same material as the hats, and offered by the same gentlemen, your committee noticed as selling at one dollar each, and think should receive encouragment by a small premium.

Among the samples of needlework exhibited, your committee feel much pleasure in noticing those from the "*Sewing School*" at Kaluaaha, Molokai, composed entirely of native girls, the shirts particularly, cut and made by Hale, Mariana, Nuilima and Aumauina, were most thoroughly made, far surpassing the majority of similar executed by foreigners. There was a decided preference in the work, but in consequence of the labels having been removed before the committee examined them, they were unable to identify the maker of each.

LADIES' DRESSES of superior workmanship, cut and made by Ana, Mahoe and Diana, also pupils of the above school.

A large QUILT of beautiful pattern and workmanship, by Kanui, Kauwa, Kipa, Kenahu, Kalena, Kamala, Lepek and Luka, the younger pupils of said school.

Your committee are of opinion that this branch of domestic manufacture is well deserving of encouragement, and should be stimulated by the award of premiums, even though small, and would therefore recommend that the Society, through the Board of Managers, place the sum of ten dollars in the hands of the instructress of said school, to be distributed by her as she may think best, among the meritorious of those contributing.

Some very elegant specimens of NEEDLEWORK, by Mrs. H. J. H. Holdsworth, Miss Anna E. Clark and Miss Sarah Clark, were exhibited which displayed much skill and taste; particularly an imitation of Irish Lace by Mrs. Holdsworth.

A pair of COTTON HOSE knit by Kahola, a native girl, attracted much attention by the very skillful mannner in which they were executed. The highly artistic Lamp Shade by Mrs. Newcomb was as beautiful to look upon as it would be tranquilizing in use.

Among other articles your committee noticed an EAGLE PLOUGH, No. 20 of Ruggles & Nourse's make, sent to the Fair by Messrs. Hall & Dimond, which seems extremely well adapted to the want of the agriculturists of these islands. Also an Ox CART, made by Mr. Mansfield, of Bridgewater, Mass., from the store of Messrs. Castle & Cooke, which exhibits in its combination of wood and iron a strength peculiarly adapted to the hard usage of this country.

Of the merits of the Monochromatic Picture exhibited, your committee hardly feel competent to decide, from their limited acquaintance with this style of drawing, but deem it an excellent picture, and highly creditable to the exhibitor, Mr. E. G. Beckwith, of the Royal School.

In conclusion, your committee would respectfully and briefly suggest, that in their opinion, the number of premiums heretofore allotted to the manufacturing branch of industry are far too limited for its proper encouragement. Respectfully submitted. J. H. WOOD,
T. METCALF,
H. RHODES.

Honolulu, June 10, 1853.

REPORT OF THE COMMITTEE ON STOCK.

To the President and Gentlemen of the R. H. Agricultural Society:

Your Committee on Stock, after having carefully examined the various animals exhibited at the present Fair of the Society, beg

to report that in their opinion, the following persons are entitled to the premiums offered by the Society, for the animals, &c., exhibited by them as set forth below in this our report.

Stallion, imported,	J. Meek.
Mare, do	R. C Janion.
Cow, do	C. G. Hopkins.
Ram and Ewe,	Alexander Adams.
Wool, best,	Mr. Moffit.
do best white fleece,	J. Meek.
Gelding, native rearing, 3 years,	M. C. Monsarrat.
Yearling, do do 2 do	J. Meek.
Bull, do over 2 and under 3,	C. G. Hopkins.
Cow, milch,	Mrs. Chamberlain.
Steer, for slaughter,	H. Sea.
Boar,	J. Meek.
Sow and pigs,	J. Meek.
Fowls, the 6 best, including 2 cocks,	S. C. Damon.
Native draught horses,	Dr. Judd.

Your committee would beg to remark that they labor under much embarrassment in determining the relative qualities of the two imported Stallions exhibited, each having in the opinion of your committee very superior points; and either of which must greatly improve our breed of horses.

Your committee regret to report that there were several classes of animals for which premiums were offered by the Society, of which there were none exhibited. Your committee would also remark that there were several exhibited for which no premiums had been offered. Amongst the latter class they would mention some very fine Pigs, 7 months old, exhibited by Mr. Moffit, for which they would recommend a premium of $3. They would also notice with approbation four fine pigs, of the Suffolk and Mackay breed, presented by Messrs. Pierce and Brewer, of Boston, 8 months old, as a good breed for the Society to encourage. A fine hog of immense size and weight, (620 lbs.) was exhibited by Gov. Kapeau, for which the committee would award a discretionary money premium of $2.

All which is respectfully submitted.

B. PITMAN,
J. DUDOIT,
L. L. TORBERT.

Honolulu, June 9, 1853.

The Society next proceeded to the annual election of officers, under the direction of the Executive Committee, which took place by ballot. The following persons were declared by them to be duly elected, viz:

Hon. Wm. L. Lee, President.

B. Pitman, G. S. Kenway, L. L. Torbert, C. B. Andrews, R. W. Wood and Jas. F. B. Marshall, Vice Presidents.

George Williams, Treasurer.

John Montgomery, Cor. Secretary.

E. O. Hall, Rec. Secretary.

S. Reynolds, B. F. Snow, C. R. Bishop, W. Newcomb and S. N. Castle, Executive Committee.

The appointment of Standing Committees was committed by vote of the Society to the President in conjunction with the Board of Managers.

The following reports were presented in order, and accepted.

Of the Committee on Garden Seeds and Fruits, by S. C. Damon and T. Cleghorne.

On Grains, by W. H. Rice; and a letter by J. T. Gower on the same subject, and another from Wm. Reynolds, on Corn.

On Neat Cattle, by R. Moffit.

On Capital and Banking, by L. Severance.

On Labor, by J. F. B. Marshall and G. Rhodes.

On Butter, by J. S. Emerson.

The hour for adjournment having arrived, it was Resolved, That when this Society finally adjourn, it adjourn to the second Tuesday in June, 1854, at Honolulu.

The following resolutions were unanimously passed, viz:

1. Resolved, That the thanks of this Society be presented to the Ladies and others, who so kindly contributed flowers and refreshments for our recent exhibition.

2. That the thanks of this Society be presented to Messrs. F. W. Thompson & Co., A. P. Everett and M. C. Monsarrat, the auctioneers of Honolulu, for their generous donation to the funds of the society.

3. That the thanks of the Society be tendered to Henry A. Pierce, Esq., of Boston, for his very generous contributions and exertions to promote the interests of agriculture on these islands.

4. That the thanks of the Society be tendered to Messrs. Pierce & Brewer, for their donation to this Society of the freight of the swine recently imported from Boston.

5. That the thanks of the Society be presented to B. P. Johnson, Esq., of Albany, N. Y., for his very acceptable present of seeds and books, and also for his kind efforts to promote the interests of our Society.

6. That the thanks of this Society be presented to the House of Representatives for the use of their Hall during our Exhibition, and also to the Chaplain of the Seamen's Friend Society for the use of the Bethel.

7. That the thanks of the Society be presented to F. W. Thompson, Esq., for his efficient services as auctioneer, at the Fair.

Adjourned to half-past 7 P. M.

At the evening session the reading of the reports was resumed, and the following were accepted.

Of the Committee on the Vine and Fig, by T. E. Taylor.

On Tobacco, by D. Baldwin.

On the Irish Potato, by L. L. Torbert.

On the Seasons, by J. S. Green.

On Roads, by Wm. Webster.

On Roads, Harbors and inter-island navigation, by T. Metcalf.

A letter was also presented on the subject of Guano, from R. C. Wyllie.

A report from J. S. Green, Corresponding Secretary of the Makawao Agricultural Society, was also presented by the President.

A discussion of considerable interest ensued, during which many important suggestions were made, which will be embraced in the future direction of the Society, by the Board of Managers.

The meetings of the Society were well sustained throughout, and were of an important and interesting character, well calculated to advance the laudable objects in view.

REPORT OF THE VICE PRESIDENT OF KAUAI.

I am happy to record the generally increasing prosperity of agricultural interests on Kauai, beyond that of any previous year since this association was formed; indeed I might say, beyond that of any time since the day (which indisputable traces prove to have once existed) when this beautiful island was one vast garden, highly cultivated, that it might afford sustenance to its then redundant population. Serious evils and drawbacks indeed, the planters have had, and still have, to contend with. But the one great evil, the scarcity of labor, which caused the abandonment of some estates and menaced all with ruin, is very much modified, and except on the large sugar plantations, is hardly felt. The two importations of Chinese coolies has done much to lessen the evil, and the natives having recovered in some degree from the California fever and its effects, are more ready than before to engage at reasonable wages. The terrible drought which dried up our fields and withered our crops has been succeeded by a season of genial showers. The depression of prices in California, which last year threatened us with ruin, and seemed to take away all inducement for industry, has given place to a healthy demand, at fair prices, for our products, and though instead of these evils, an unseen enemy in the shape of an unaccountable blight, has laid waste some of our fairest fields, and the pelua has destroyed whole crops of grain, yet these lesser evils have not been general.

The Koloa plantation, under the able management of Mr. Burbank, is in a highly flourishing state. 450 acres are in cultivation, of which 260 acres were planted last season, and all is in a vigorous and healthy state. The crop now coming off is estimated at 150 tons. Mr. Burbank has had many difficulties to contend with, the present mill and works being old, small and imperfect. But a new water-wheel of the most approved construction, is on its way out, and a new mill is ready for erection as soon as the present crop is in, when the works will be in fine condition to take in the large crop now ripening.

The Lihue plantation is also thriving. The crop which is now nearly in, is estimated at one hundred and twenty-five tons, about one half what it would have been but for the unparelleled drought of last year. The sugar has all been of good quality, and will improve as the land and the cane grow older. This plantation has met with a

severe drawback in the loss of more than one half of their last planting by a sudden blight of which a particular account will be given by me in my report as one of the committee on sugar. Their works are in admirable condition, and are to be rendered still more efficient by the addition of a second train of sugar-kettles, a steam engine of 25 horse power to run the mill through the night, (the water power being sufficient for 12 hours only) and a small engine to run the centrifugal machine. These are now on the way out, and when these additions are completed, their works will be unequalled by any now on the islands, and will manufacture sugar with a rapidity before unattempted in the Pacific. Their last year's planting was of 300 acres, and they will have put under cultivation by next August about 650 acres, besides some 60 acres cultivated off from the plantation by other parties.

These are the only sugar plantations now in cultivation on Kauai. The Chinamen's plantation at Mahaulipu, near Koloa, is in a state of ruin, owing to pecuniary embarrassments of the proprietor. The mill, a primitive wooden affair, the works and buildings are gone to decay, and the property at present has gone out of cultivation.

I am indebted to Godfrey Rhodes, Esq. for the following information of the state of agriculture at Hanalei and its vicinity.

"Mr. Titcomb's Coffee Plantation is in fine order, and he expects a large crop, of perhaps 80 to 100 M. lbs. He has lately cleared more land for planting; his plantation is compact, and well managed. I believe he is satisfied with his coolies; he has a number of natives engaged, but has difficulty in making them fulfil their agreements. Our own plantation is thriving, although a couple of years must elapse before it re-attains the prosperous state it was in in 1849 and 1850, when our natives all left us, smitten with the California fever. I am very well satisfied with the coolies, and much prefer them as laborers to the natives.

"Mr. Dudoit, at Kilauea, has a fine field of corn of about fifteen acres; he has found that it succeeds and is now going on a much larger scale; he has no coolies, and I believe experiences much annoyance from the caprices and annoyances of the natives.

"The new firm at Koolau, Messrs. Standefer & Deeren is established as a regular provision farm, and I believe is the first of the kind on the islands. They have 600 acres of land rented, and have already in cultivation 25 acres of corn, 10 acres sweet potatoes, 8 acres beans.

They have no difficulty in obtaining laborers at 25c per day; they have 12 men engaged by the year. Their crop of corn is not expected to be very large this season, as much has been destroyed by the worms. In another year they expect larger crops, and intend to enlarge their operations. Koolau is a beautiful district, and there is space sufficient for several farms there, but for extensive cultivation, I feel convinced that foreign labor is absolutely necessary."

The plantations of Mr. Titcomb and Mr. Rhodes are the only two coffee plantations in cultivation on this island; the only two, indeed, I believe on the group, in bearing. There can be little doubt but that this business, in places adapted to the coffee plant, is a most profitable as well as a most pleasant one.

There are now two plantations for the culture and manufacture of Tobacco on this island. They are both at Mana, near Waimea. One is carried on by Mr. J. R. Opitz, the other by Messrs. Archer & Gruben. The tobacco raised by them is said to be very superior, and the enterprise promises to be very successful. The tobacco is to be manufactured into cigars on the plantation.

I am indebted to Mr. Archer for the following particulars of these two plantations. Mr. Opitz has 6 acres, and Messrs. Archer & Gruben 5 acres growing, of which crop 2-3 is already housed. From the great want of rain this season on that side of the island, the tobacco crop of the natives has entirely failed. Messrs. Opitz and Archer & Gruben have probably succeeded in raising a crop by their improved method of agriculture, aided, perhaps, by the better adaptation of their soil, which is remarkably deep and rich. It is a singular fact, that during the almost unparalleled drought of the year before last, this region had more rain than during the last year, when all other parts of the island were blessed with frequent and copious showers. The crops of these two plantations have suffered from the drought, but it is encouraging to reflect that they have succeeded in raising an average crop in a season so unfavorable. These two plantations contain about 250 acres each. The crop now coming off, it is estimated, will produce about 300 M. cigars for each plantation. Neither of these gentlemen have had any experience in the raising of tobacco except what they have acquired on Kauai, and as I believe this branch of agriculture is destined to be an important one here, I would suggest that means be taken by the Society to procure for them and others who

may be about engaging in the business, such information from tobacco growing countries, as to the best method of raising and process of curing, as may be useful to them. The treatment that tobacco receives from the time the crop is housed is not thoroughly understood, and any information that the Society can obtain on the subject, would be of great value.

Since our last meeting, Thos. Brown, Esq., the hospitable proprietor of the Wailua Falls Estate, has left these islands with his family, for a residence in the United States. Their loss is deeply felt by the limited society of this island. The estate, including herd, horses, sheep, &c., was sold for the very low price of $5,000, not the cost of the mansion itself. The purchasers were Messrs. Montgomery and Turner, the latter of whom carries on the place. These gentlemen have leased some more land, and intend, I believe, to carry on the Dairy and Grazing business on a larger scale.

Mr. George Gilmore, at Koloa, has also a Dairy Farm, and has done quite a good business the year past, in supplying the unusually large fleet of whale-ships that have touched there, with firewood and recruits.

J. Dudoit, Esq. has also a large Dairy Farm at Kilauea, and has packed a large quantity of Beef for the Honolulu market.

Lieut. Reynolds, U. S. N , has leased 100 acres of beautiful land at Kapuahole, Nawiliwili, and is cultivating Indian Corn. His first crop was very successful, but his subsequent plantings have suffered much from the caterpillar and pelua, which destroyed several successive crops. He has now about 25 acres in cultivation, which is in fine condition. From what his experience teaches, he thinks it useless to plant corn earlier than May, as his plantings previous to that date have either been dwarfed or destroyed by worms.

The great want of good, or I should say of any coasting vessels has been a serious evil on Kauai the past year. Many were lost during the severe storms of the winter, most of which losses, however, were a benefit to the traveling community. The best ones have gone on foreign voyages, and there is now no regular trader between Kauai and Honolulu that can be called a safe vessel. It has only been with the utmost difficulty and loss of time that freight and passengers could find conveyance from here to Honolulu. The people of Kauai will hail with joy the success of the attempts now making to introduce steam

or Ericsson propellers between the islands, and I earnestly commend this subject to the consideration of the Society. I would suggest that a committee be chosen to examine the subject thoroughly, with a view to inviting capitalists both here and abroad to take the matter up. The committee could easily ascertain from planters, graziers, merchants and missionaries what amount of freight and passage could be *secured* at fair rates to such vessel or vessels The prospective amount which such new facilities would undoubtedly create, and the amount of native freight and passage money, which would form no inconsiderable item, could be approximated to very nearly, and it seems to me that a reliable statement, drawn up with care by a competent committee, and laid before capitalists, under the sanction of this Society, would induce them without hesitation, to take the matter up, and give us at once those means that we so much need for the proper developement of our resources, and the promotion of industry and prosperity. I believe this measure would do more than almost any other to give a sudden and permanent impulse to agricultural enterprise at these islands.

Respectfully submitted. J. F. B. MARSHALL.

REPORT OF THE COMMITTEE ON POULTRY.

MR. PRESIDENT:—Your Committee on Poultry proposed to themselves to ascertain if possible,

I. The comparative value of hens for laying.
II. Their comparative value for breeding purposes.
III. The diseases of fowls, and if possible, find the best remedies.
IV. The best and cheapest food.

Mr. Metcalf, a member of the committee, has furnished me the following observations.

"My fowls are of a mongrel breed, composed of the Native, Malay and Shanghai. I have noticed that the hens which are the nearest to the pure native or Shanghai are by far the best incubators, and rear their chicks best; but where the Malay predominates they are the worst kind. They lay but indifferently, often three, four and even five in a single nest, and all persist in hatching and rearing the

chicks, a course which is sure to end in a few days after they are hatched, in a general fight, killing all the chicks or abandoning them entirely. As far as my experience goes, the pure Malay is much better for laying and breeding than when mixed, with either the native or Shanghai."

Your committee regret that nothing can be presented on the diseases to which fowls are subject, owing to the ill health of Mr. Rogers, who was to prepare that part of the report. The absence of Mr. Janion renders this report less complete than it was expected to be.

Regarding the best and cheapest food I would say that I have no experiments of my own to lay before you. It is a fact that fowls choose first and thrive best on Indian corn; but while this grain commands such high prices as it does now it cannot be fed to them. Boiled vegetables mashed up with bran or meal, are much relished.

Those who have large experience says that boiled food is the best and cheapest, especially if the fowls are kept up all the year.

One person in the United States says: "Give your hens and rooster (who by the way, requires as much, nay, more attention than the hens,) water, gravel and animal food, and they will lay as well one kind as another. Boiled potatoes, corn, wheat, rye, barley, buckwheat and anything that they eat will do."

There is a saving in boiling any kind of grain for fowls.

The Sunflower seed is said to fatten fowls better and increase the number of eggs more than any other kind of grain. Broom corn seed is as good for fowls as wheat. The seeds of melons and squashes are better given to fowls than thrown away. The native Hei or Papaw apple is good for poultry.

As fowls are somewhat carnivorous it may not be amiss to present an idea which was found in an account of a flaying establishment near Paris. A pile of scraps and refuse meat is made in the sun and partly covered with straw, in a few days the flies have deposited the germs of a different kind of animal, so that the whole becomes a living mass, which is sold for feeding poultry.

E. WHITTLESEY.

REPORT ON SUGAR, BY J. F. B. MARSHALL.

R. W. Wood, M. D.

My Dear Sir:—As I am unable to attend the meeting of the R. H. A. S., the duty will devolve on you as second on the Committee on Sugar, to fill the chair and make up the report. As the Society will in this respect be the gainers by my absence, I regret it the less, though on other accounts I should be glad to be present. I address to you the few remarks I have to make on sugar, and if you find anything worthy of being embodied in your report, please do so, and leave out all that is of no interest.

As there are but two Sugar Plantations on Kauai, and as the proprietor of the Koloa Plantation is also a member of the Committee on Sugar, and can report upon the condition of that estate more understandingly than I can, I need offer no apology for confining my remarks in connection with this subject, to the affairs of our own Plantation at Lihue.

In regard to the raising of cane we have met with many obstacles since the Plantation was commenced, some of which were owing to inexperience, and are being gradually overcome. But there are some difficulties for which no cause, and as yet no remedy has been discovered. The great evil which this year has beset us, and one to which I wish particularly to call the attention of this Society, that we may obtain if possible, some information on the subject, is a severe blight which has destroyed more than half our last year's planting and seriously injures the whole. Our cane field of 240 acres, was planted between the 1st of June and the middle of August, and up to the last of October, was the finest looking field of cane I had ever seen, and the rapidity of its growth was surprising. You may judge of this by the fact that a part of the field planted about the 15th of June had tasseled on the 15th of November, and the canes were larger than the average of our crop the previous year. Soon after a long southerly storm in October, the field began to droop and the leaves to turn yellow, both of the newly planted cane, and the ratoons which had sprung up from that which was taken of the previous years planting for seed. The blight commenced through the centre of the two fields, and slowly spread itself over the whole, till the fields which in September looked green and flourishing, appeared as though a fire had passed over it. Not till April did any of the fields show

that they were recovering, but the largest portion is entirely dead. I have sought in vain for the cause of this fatal blight. The books that I have consulted throw no light upon the subject, and it is singular that of those books which I have seen on the culture of cane, Porter, Evans, Scoffern and Wray, hardly a word is said about the *diseases* of the plant. Porter speaks of a blight caused by minute insects, but by the closest examination by a miscroscope, I can discover no signs of any insects other than those found on the most healthy canes. The cane in the hollows and small ravines, which is generally the most vigorous, was most fatally affected, and in some places, where the field was but little injured, the cane in the hollows of the field would be entirely killed. The cane fields of Mr. Charman on another part of the plantation, and that of Mr. Pease, adjoining, did not seem at all affected at first, but since ours has begun to recover, (that I mean which is not dead,) their fields have become affected, and are now looking very badly. I am completely baffled in my attempts to find out the cause of this destructive disease or to apply a remedy; and if any of the planters from the other islands can throw any light on the matter I should be much pleased to gain some information on this subject. The cane was not planted too early, for that which was last planted was equally affected with the first. Neither was it because of too shallow planting, as cane planted in furrows made by the "monster ploughs" was also affected. It was not from drought as we had sufficient rain and the cane in the moist ravines was more diseased than the rest. I should have thought it might have been from close planting, but cane that was not close planted was equally affected. I have exhausted my ingenuity in conjectures as to the cause of this mysterious disease, in vain.—The only supposition which seems not to be *contradicted* by any of the circumstances, is that the growth of the cane planted in a rich soil, and brought forward with such rapidity by the favorable weather, was too fast for its strength; and that some poisonous substance was brought on the southerly gale, which its tender stalks were unable to resist. But the cane at Koloa did not suffer from this southerly wind; for which I can only account by the fact that southerly storms are always more severely felt with us than at Koloa, the wind gathering force on the hills south of Puna, as the trades gather strength at the Pali to sweep down the Nuuanu valley.

I think June is too early to plant cane; July is the best month.—Our cane is planted in drills four feet apart, which I am convinced is too close, and that cane should be at least six feet apart.

We have experienced difficulty in the manufacture of sugar, on account of the large proportion of molasses. We have tried in vain to lessen the quantity, by various experiments. We have made over eight barrels of molasses to one ton of sugar; this may be partly from inexperience, none of our hands in the mill ever having had any previous experience in the business, but more I think from the nature of the cane. We commenced our planting with wild cane taken from the ravines, and I presume it will require several years cultivation to make the yield equal to that of older plantations.

I believe the best packages for sugar to be half barrels, if they can be placed here at a low rate of freight. They are more expensive than bags, but taking into consideration the loss by rats, and the risk of shipping in leaky vessels and boating through the serf, the half barrels come nearly as cheap in the end, and are a much more saleable package. Most of our present crop has been packed in half barrels and the rest in native mat bags of 25 pounds each. The bags are made square and sewed up, which makes a much neater package than the ordinary woven round bottom mats.

We find Coolies answer much better in the mill and boiling house than the natives, they are quick to learn, careful and attentive.

All our sugar (except five or six tons) has been drained by the centrifugal separator, which we consider invaluable on a sugar plantation. Ours is run by water power at present, but we have a small steam engine of five horse power, on the way out for this purpose, as it is better to have the power disconnected from that which drives the rollers. A Chinaman has charge of the machine and manages it with skill and efficiency.

The scarcity of labor is still our greatest difficulty, and I trust measures will be taken at the present meeting to import a further supply of Coolies.

Respectfully Yours,

J. F. B. MARSHALL.

REPORT OF THE COMMITTEE ON HORTICULTURE.

The committee of your Society, to whom is delegated the task of reporting the doings of our community in the department of Horticulture since our last meeting, find it no easy task to discover any facts on which to base this report, for there is in fact, with few exceptions, almost nothing in the shape of a garden amongst us. It is to me at least a source of sincere regret that that pursuit, of all others the most pure and invigorating, should be so utterly neglected as it unfortunately is, on this island at least, and when I draw on my own experience which testifies to the pleasures of the delightful pursuit, my surprise is equal to my deep regret. There is not in the whole range of our various pursuits and occupations, one fancy, one vocation, so unalloyed, in all its delightful and fascinating phases, as the cultivation of a garden. All the enjoyment and gratifications afforded by all other pursuits are to be found in practical horticulture, and still a balance in its favor over them all combined. The florist unites in his collection of flowers, as many fancies as would occupy a large proportion of the community, and extracts gratification and pleasure from each and all of them. The fortunate possessor of one of the invaluable works of the old masters does not rejoice over his Reubens, Rafael or Paul Potter, with more ecstacy than does the florist over his Tulip or Carnation bed, nor does the owner of a superb picture gallery more proudly point to his choicest gems of art than does the florist his choice flower beds. The Conchologist may boast of his choice collection of rare and beautiful shells, perhaps excelling in variety and rarity, those of all his neighbors, but he is compelled to see them in their wondrous sameness—there they lie, an inanimate mass without change or variety; and how few persons are competent to judge of or derive gratification from them. Whilst the flower garden is one constant scene of variety, every succeeding morning developing some new beauty, in the freshly expanded petals of some charming and fragrant flower; the musty antiquarian sits in his gloomy and solitary chamber, poring over his collection of ancient coins and other melancholy relics of past ages from which no ingenuity can extract one cheering idea. His greatest pleasure is in the narrow and contracted idea that he is the sole possessor of some old relic, of little

value in itself for any intrinsic merit, and if another should be found, his hoarded treasure at once loses its fictitious value. He cannot, if the very nature of his occupation would permit, give a seed or a cutting to a fellow admirer; whilst the florist can share his pleasure with a friend, and still have his treasure undiminished. The miser does not more value his hoarded treasure than does the gardener his choice fruits, flowers and vegetables. The lover of a garden is a collector and propagator of new and never-changing delights. The intense anxiety with which he watches the first indication of the germination of a new or choice seed and the progress of the young plant to maturity, in the opening of the first flower, is a pleasurable sensation unknown to other pursuits, and if the newly developed blossom should surpass in beauty or fragrance his previous collection, his hopes are consummated and his pleasure complete. The horticulturist does not visit his collection to find them precisely as they presented themselves on his previous visit. He finds something new every day; whilst the possessor of a picture, valuable coin, or even a collection of natural history, is doomed to view them constantly in precisely the same aspect, without variety. The gardener is amply repaid for all toil and exertion, by his fruits, flowers and vegetables, and he is not obliged to search for a connoisseur to share his pleasures, as everybody can appreciate the delight of a flower and fruit garden. Another advantage which a horticulturist possesses over all other pursuits, is, that it is within the reach of all—the humblest cottager can cultivate his little patch—the citizen can have his blooming flower pots as easily as the Peer can rejoice on his Chatsworth or Eaton Hall.

The absorbing pleasures of a garden offer a natural and readily appreciated attraction to the young, and I am convinced from much experience, that no other pursuit will operate so favorably on the youthful mind, as the culture of flowers. Nature has emplanted in every infant an innate love of flowers, and it is the bounden duty of all who are entrusted with the responsible duty of educating and developing the infant faculties, taste and propensities, to guide and direct them to such pursuits as are most likely to refine and improve them. What other pursuit, I would ask, is so entirely guileless and unalloyed

and what is there in the whole range of creation so perfectly in harmony with the untainted and pure mind of the child fresh from the hand of its Creator, as the enjoyment of his most charming as it is his purest handiwork, as displayed in a flower garden. Teach then, the child to till and cultivate flowers—they will assuredly win their own way to its affections, and you lay the foundation of a love for the sweetest and purest of all earthly pursuits, which in after life, when the allurements of the wicked world are gathered around him, will win him from and shelter him against their dangerous blandishments. I can say with perfect truth, that the happiest hours I have ever spent in a long and chequered life have been in the society of my flower garden, and it has this additional advantage that while many of the gaieties and pleasures which fascinate us in early life, cease to please in the decline of life, the flower garden loses not one jot of its fascination, to our latest hour.

Is is not then, sincerely to be regretted, that more attention is not devoted to this charming pursuit?

A few of our fair friends, are, I am happy to say, distinguished exceptions, and the beautiful boquets which adorn our show-room, containing choice collections of charming flowers, attest that this culture is duly appreciated by some at least amongst us. Would that I could persuade many more to follow so good and excellent an example.

I am not aware that much progress has been made since our last meeting in the introduction or cultivation of new fruits or vegetables. The difficulty of transporting fresh seeds to this place has ever been a great impediment. In California garden seeds have been raised of late with much success, but such enormous prices are asked for them there, that most people are deterred from purchasing. Eight dollars per pound for turnip seed which I have paid lately, is a great obstacle to their extensive culture. Many parcels of seeds have been forwarded to me from Australia in the last nine months, not one of which has reached me, and as few vegetable seeds can be matured here, our stock I regret to say still continues meagre and limited. I hear with much pleasure that Mr. Rice & Co. are expecting a collection in the "Matanzas," now daily looked for, and I trust they may

arrive fresh and in good condition. The same ship also brings two swarms of bees, one of which packed in ice, will probably reach us in safety. The able report of our President enters so fully into the subject of fruit trees that it is unnecessary for me to dilate on it. If we shall succeed in securing a good supply of fresh vegetable seeds, I trust that next year's exhibition will be more attractive in this not unimportant department.

JOHN MONTGOMERY.

REPORT ON COFFEE.

Mr. Chairman.—The very dogmatical manner in which, last year, my theories respecting the cultivation of the coffee tree were demolished by a professional hand, might deter me from attempting a reply to criticisms emanating from so high an authority.

I allude to observations made in an essay "on the promotion and eradication of worms," by Mr. Duncan, read before the last meeting of the Association; but while fully admitting the justice of many of the remarks, and bowing to the superior knowledge of the gentleman in all that relates to scientific horticulture, I think that some of his principles are wholly inapplicable to cultivation on an extensive scale, and I find besides that he has misunderstood some of the directions I gave in the paper read before this Society in 1851.

I can testify as to one of the theories laid down by the gentleman, viz: that most important one, the destruction of insects by means of high cultivation. Although the fact does not bear directly on the subject which it is my intention to discuss, I may mention that when I commenced planting the land I now occupy, it was almost impossible to grow any description of vegetables. Our operations in sowing and planting were several times repeated before they were successful; entire nurseries of young plants were destroyed in a single night; even the young coffee plants whose stems are very tough did not escape, but were devoured like other and more tender productions.—After some time I discovered that by frequently working the land,

turning it over, and exposing the under surface to the action of the light and atmosphere, all vermin were either destroyed or dislodged, so that the whole of our land which has been for any space of time under cultivation, I believe to be now quite clear of them. During the earlier years of our occupancy of the land, the swarms of caterpillers that used periodically to make their appearance were innumerable; on some occasions they so completely covered large tracts of land that it was impossible to walk without crushing numbers at each step; they destroyed every vegetable before them; but for some time past have completely disappeared. Our present immunity from their ravages is in my opinion entirely attributable to the cultivation of the land.

If the repeated transplantation recommended for the coffee tree by Mr. Duncan has been successfully practiced on fruit trees elsewhere, I have no doubt it may be advantageously adopted here; the increased value which the operation would give the young plant would certainly warrant a trial of the experiment. The small additional outlay attendant upon the transplanting of a few nurseries in the formation of a coffee plantation would be very insignificant as compared with the advantages that would accrue from the successful practice of the system. I differ entirely however, from Mr. Duncan, as to the time of finally removing the young plant. A coffee tree should in my opinion be at least a twelvemonth old before the last operation of transplanting takes place, as it would at that age be larger and stronger and less apt to sustain injury in the field by careless hoeing than if it were planted out at the earlier age of eighteen or twenty weeks, as recommended by Mr. Duncan. If the repeated removals however, should develope the fibrous roots to such an extent as to render the small space it occupied in the nursery, insufficient for its support during the whole of that time, it should undoubtedly be planted out in the earlier period. I have every reason to believe that the attempt to form a plantation from cuttings would fail. I have tried numbers of cuttings, but have never in any one case succeeded in obtaining a tree from them; they have invariably died without vegetating. On one and only one occasion have I heard of a cutting having taken root; that was during a very wet season. My impression is

hat in ordinary seasons not one in a hundred would grow. I there- re feel persuaded that Mr. Duncan must be mistaken in saying that e Brazil plantations are formed from cuttings. I should ther suppose they are formed by drawing wild or waste plants, imming off their roots and planting them in the manner I described 1851, which Mr. Duncan appears to have misunderstood. The offee tree does not send up suckers, its nearest approach to the cker is a shoot or number of shoots, which when the tree is topped, any of the primary branches are destroyed, spring from the stem the tree just below the junction of the primary branches. If cut f and planted they would not grow. I merely designated the plants was describing as suckers in my ignorance of any more appropriate me for them. Mr. Duncan says the tree should be dwarfed by the ots; possibly that might be done on a small scale if our laborers, even the managers of plantations were skillful gardeners, but in e present state of agricultural knowledge on these islands I consider e plan impracticable; even had we science sufficient, the labor quired on a large plantation would be too great to admit of the sys- ms being throughly carried out, and if practicable I doubt whether would be expedient. The coffee tree, in my opinion, should be ade to cover as much ground as possible. If the tree is to be warfed by destroying the roots, a handsome and symmetrical little lant may, by very skillful management possibly be obtained, but its rops will be reduced in proportion to its dwarfing; and I very much oubt whether by the harsh process to which it is subjected, its pro- uctive powers will not be irreparably injured—should the operation be nskilfully performed the tree will be ruined.

Mr. Duncan condemns the practice of extirpating gormandizers by e knife, but does not say in what manner they should be got rid of. The gormandizer is essentially a spurious production, an excrescence, different in its qualities from the natural and healthy branches, and unless it can be prevented from making its appearance by high culti- vation, I know of no means other than the knife for its eradication.

It is to be regretted that well qualified as Mr. Duncan is to give information on agricultural subjects, we have not still the benefit of his skill and science. His instructions modified to a certain

extent to allow for difference of climate and other circumstances, might be successfully acted upon, and prove at once profitable to proprietors and beneficial to the community.

G. RHODES.

REPORT ON AGRICULTURAL IMPLEMENTS.

In the culture of the soil, in all countries, the implements used should be an object of the first importance: and in fact the state and progress of agriculture among a people may ordinarily be judged of by inspecting the implements they use and the manner of their using them.

In these islands the subject of implements is the more important from the fact that they are mostly imported at great expense, consequently they come high to the planter, and should therefore be of the best kind, so as to accomplish the greatest amount of work with the least expense.

The price of labor on the islands is confessedly high and one object of the planter in procuring his implements is to save labor.

The islanders have always been an agricultural people, and yet taking the population generally, they have made but little progress in improved methods of cultivating the soil, or in the instruments used for this purpose. Until the introduction of foreign commerce the only implements used by the natives was a hard stick of wood sharpened at one end, the same doubtless that we read of, in the history of the agriculture of other nations in their primitive state. When iron was introduced, a piece of it about a foot long, with a socket at one end for a handle, and flattened and rounded at the other, was fixed on the end of the old fashioned *oo* and was a great improvement. A greater still was to fasten about a foot of the sharp end of the whaleman's spade on a straight stick which is of the best steel.

This same oo, or the straight stick with the piece of sharpened iron on the end of it, is still the great and only implement of nine-tenths of the cultivators of the soil on these islands. No wonder our progress as a people in this branch of industry has been slow, and the amount

of production small. The natives are much attached to this rude and simple instrument, and usually prefer it to the hoe, spade or shovel, unless they have learned from foreigners to prefer the latter. They use the oo with surprising skill and effect, but it is a hard implement on the back and knees, the body while at work being in an almost sitting posture, and the arms are not in a position to put forth their full strength. The back soon begins to ache, the knees give way and after three or four hour's work the laborer when left to his own choice returns to his hut for repose. Hence all native agriculture is on a small scale and the results small. It cannot be otherwise until they learn to use implements more efficient, expeditious, and less severe upon the muscles, as some have already done with good success; and were it not that foreign implements are so expensive they would be much more generally adopted. To render them less so should be one important object of this Society.

Among foreign planters on these islands the implements used are such as are common in Europe and the United States. The plough, harrow, the cultivator, the hoe, the spade, the shovel, the rake, together with the usual complement of carts, yokes, chains, horse gear, scythes, &c., are common, and generally are of a good quality, being the latest improvements of their kind. A one horse power engine together with a grain thresher and separator of the chaff, has lately been introduced by one of the wheat growers of Maui, and has already been of essential service there. By the use of two horses and the labor of one man and two boys, 50 or 60 bushels of wheat can be threshed out, cleaned and put in the bags in a day, thus saving a great deal of time and labor, enough to pay for the whole machine in a short time. A field reaper is said to be on its way to the islands, which will be another important improvement, as it will save time and labor and thus enable wheat growers to produce that valuable grain at much less cost than could be done without these improvements.

In regard to the other important implements we propose to make a few observations.

THE PLOUGH.—This is the farmer's right arm; with it he begins to break the soil, and without it he can do nothing. Upon his success in using it will depend very much the success of his crop. Bad ploughing is a sure indication of bad farming; and in order to secure good ploughing a good implement must be procured.

From the best information we have been able to obtain, the long English iron plough and Eagle ploughs of various sizes answer the best purpose for our planters. The former is generally preferred on sugar plantations. Its chief advantages lie in its great strength and durability.

The oxen on the plantations are generally badly trained, and hence ploughs especially in breaking up, are apt to be broken if it is possible to break them. The English iron plough will bend and then it can be straightened out and made as good as ever, while the Eagle plough, having a beam and handles of wood may be broken, and from the expensiveness of work, the want of skill and of suitable timber, is not so easily repaired. The English iron plough being very long and low is more easily held by the ploughman than the Eagle plough. It has wrought iron points which are not easily broken, and when in good order cuts a deep wide and true furrow. Still there is a difference of opinion as to which is preferable. It is admitted that the Eagle plough in the hands of a good ploughman answers about as well as any other. In fact, here as in other countries, the same plough does not answer equally well in all places. Ordinarily, the plough that is best adapted to the rough and awkward usage of the native ploughman and badly trained cattle, will answer the best purpose among our planters. Care should be taken to have on hand a supply of extra points and other parts, so that if any part give way no time may be lost in replacing it. The great defect in our imported ploughs for ordinary purposes is their being too light. Experience teaches the necessity of stirring the ground deep and thoroughly, and the ploughs in use do not, it is said, take a furrow sufficiently deep; nor will they bear a draught sufficiently heavy, for the stiff compact soil of some sugar plantations, although they answer well in localities like Makawao and Ulupalakua, Maui, where the soil is rather loose and mellow. It is thought therefore, that a larger size of the English iron, or Eagle plough, than those now in use, would be an advantage.

Another plough of great importance is in use on the sugar plantations of Kauai. It is made mostly of wood, double mould board, and of great size and strength, requiring from 8 to 12 yoke of oxen to draw it. It may be called a drill plough as it is used for opening drills for planting sugar cane. The roots of the cane run shallow in the ground, and are apt to suffer from the drought unless planted very

deep. Hence a drill or furrow is opened by this mammoth plough of some 15 or 20 inches deep, in which the seed cane is planted, and as the cane grows, the adjacent soil is gradually thrown in about the roots and they are kept well under ground. This mode of planting is said to be very successful and the planters say they could not dispense with this important implement. It answers moreover the purpose of a subsoil plough by throwing the earth below on top, where it is exposed to the air and sun, and becomes good mould.

Thus the fertility of the soil is improved. If we are correctly informed, this plough is the invention of Mr. Burbank, of Koloa plantation.

The harrows which are imported are said to be liable to the same objection as the ploughs; that is, they are too light in certain plantations like those on Kauai, and consequently do not sufficiently pulverize the soil. Hence the best harrows in use are those which are made on the islands, usually on the plantations. They are very heavy, have strong teeth and require three or four yoke of oxen to draw them. The heavy draught is no objection where oxen are so abundant and cheap. To get the ground well and deeply stirred before planting is the great matter, and to do this a heavy harrow is a most effectual implement and it is particularly necessary when the ground is new and hard.

The Cultivator comes next in order. It is in general use among planters on the islands, but the general complaint is that those imported are both too light and lack that supply of different formed teeth and scarifiers that are common in other countries.

The Cultivator is a great labor saving machine and is of immense importance for running between the rows of cane, coffee and other crops, not only for the purpose of stirring the soil, but of cutting up the grass and weeds. They should be made to contract and expand to the width of the rows, and be furnished with various forms of teeth, to be shifted as occasion may require, some narrow teeth to stir the soil, others broad and flat to cut up the weeds, and others again in the form of a double mould board for mixing manure in the soil and pulverizing it.

The Cultivator may be used to great advantage by our wheat growers either for covering the grain when sown broadcast or for opening drills for it as the case may be. The soil in our wheat growing re-

gions is usually loose and mellow after plouging and the cultivator is well adapted to such.

The universal cultivator mentioned in some of our catalogues of agricultural implements might be introduced here with advantage. It is said to be strong and durable and does its work more thoroughly than the ordinary kind.

THE HOE.—The hoe is another important implement to our planters, and a considerable variety have been introduced. The common garden hoe is too feeble, and the large West India hoe is too heavy for the cane and coffee plantations.

The hoe best adapted to the islands is that which combines the greatest amount of strength with lightness, and which has a large eye. The wood of the islands best adapted for handles is more brittle than oak or hickory: native laborers too are apt to break handles of any kind, hence the hoe should have a large eye to receive a large handle. The wood most commonly used for handles is the *hau*, which is lightest and sufficiently strong. The kind of hoe generally preferred on the plantations is made of steel, of the ordinary size, not quite so heavy, nor so broad as the common garden hoe; but of better material and more easily kept sharp. It has a large eye.

CARTS.—A variety of carts are in use on the islands, mostly imported; some with iron axles, others of wood. But we believe as a general thing our planters find it more to their advantage to have their carts made here and mostly on their plantations, than to import them. A stronger article is needed generally than those imported, owing in part to bad roads, and in part to the fact that ox power is abundant, and the drivers unskillful and careless. Hence the planter seeks for strength mainly in constructing this important implement. Native timber answers well for the fellies of cart wheels, for the hubs also and some other of its parts, but oak is needed for the spokes, tongue and axle.

THE CORN SHELLER.—This is an implement much needed, and we believe it has been introduced on the islands with good success. Corn growing is becoming more fashionable, as well as more profitable than it used to be, but considering the price of native labor the shelling of the corn by hand is expensive and tedious, but the corn shellers mentioned in the catalogue of implements should be introduced extensively or manufactured, by which one hand will shell 100 bushels a day which

would be a great advantage. In fact every labor saving implement where labor is so high should be looked upon with favor and a trial made at least to introduce it.

There is also a great want of mills for grinding corn on the islands. Here and there a hand mill is in use and they are found very convenient. But it is a matter of regret that they are so scarce, and imported corn meal, not the most sweet and good, is used, while an abundance of that which is new and fresh might be manufactured here and at a lower price.

THE THERMOMETER CHURN.—This implement is spoken highly of in works on agriculture and might be introduced here with advantage. It is made of wood and metal combined, is worked by a crank and is so constructed, that the milk or cream by pouring warm water into a cavity adjacent to it may be brought to the required temperature, and the operation of churning is thus greatly facilitated. This is a labor saving machine. It is called a thermometer churn because a thermometer is attached to it to indicate when the milk or cream has risen to the right temperature. The cylindrical churn is also highly approved, and those in the dairy business might do well to try one or both of these as they cost in the United States only $3 or $4.

The expense of agricultural implements has long been a matter of regret, and a heavy drawback upon our agriculture. They are confessedly very expensive, and the grand reason is that the freight is so high, more in some instances than the original cost.

How this evil is to be remedied is the question. An agricultural warehouse under the direction of this Society has been spoken of and advocated by some. But this would involve an investment of capital which the Society does not possess; otherwise no reason appears why it might not be done. But the small amount the Society does expend in premiums might perhaps be more advantageously expended in importing new and improved implements of husbandry, than in medals, cups, &c. We merely make the suggestion.

One principal cause of the high price of implements has been the freight, and this is owing to their taking up so much room on board the ship. Would it not be economy to order them in pieces, boxed up and so marked that there would be little difficulty in putting them together here? Ploughs, harrows, cultivators, materials for carts and wheelbarrows, for instance, all of which occupy much room if imported in

quantities. can be packed in this way as some we believe have been, in order, to reduce their bulk and considerable freight be thus saved.

The foregoing remarks we are aware go no deeper than the surface of the subject, but in our want of information and lack of experience on the subject of implements they are the best we have to offer, and they are presented rather as an evidence of our good will towards the cause in which the Society is engaged than for their intrinsic or practical value.

Respectfully submitted.

R. ARMSTRONG,
Chairman of Committee.

REPORT OF THE COMMITTEE ON HORSES.

The Committee on improvement of the breed of Horses have to report some advance during the past year.

A horse and mare, for breeding purposes, imported from Sydney in His Majesty's Yacht the Harriet, are said to have been sold for eight hundred dollars each. They are of a brown color, about 16 hands high, of rather a light frame, and said to be from the English breed of race horses; but the committee are not aware that any trial of their speed has been made.

A bay mare imported from San Francisco by Mr. Alex. J. Cartwright, Jr., and valued at six hundred dollars is of an American stock, carrying herself finely in the harness.

Two mares imported by Mr. Foley from San Francisco and belonging to his circus are also destined for breeding. One is black, the other a light chestnut. Both are well formed animals, small and high spirited.

We have now on the island of Oahu three black horses, stallions, derived, as we suppose, more or less remotely from the Andalusian breed of Old Spain. They were imported from Valparaiso. A number of colts from one of these were sold at auction during the year, at prices ranging one hundred per cent higher than others of the common stock which were sold at the same time. This stock are usually black or iron gray.

We have also the stock of Admiral, a finely formed bay horse imported from Sydney. They are not yet numerous enough or old enough to enable the committee to say more than that there is every reason to expect from this source an improvement in agility and beauty of form. The bay is every where a favorite color.

Some colts of the breed of Oregon, a fine chesnut, have proved of a large size, well formed and active. One was sold during the year at three hundred dollars, another at one year old for two hundred and fifty dollars, and another at two weeks old to follow the ownership of the mother, was sold at ninety-five dollars. These prices, unprecedented, we believe, in these islands, show how great an improvement is expected to be made in our breed of horses from this importation of foreign stock.

Good pacing horses are justly esteemed among us for their easy gait and powers of endurance, yet we believe this is a gait almost or quite unknown among the high bred horses in Europe and America. From ancient sculptures and paintings we are led to suppose that the Egyptians, Greeks and Romans were unacquainted with the trotting horse, for we find their delineations of the horse, represent him either upon the gallop or with both legs of the same side raised from the ground. It may be that the square trot is an artificial gait, from which, when neglected, the animal returns by slow degrees to the regular "side at a time" pace of the ancients, and the fact which your committee have verified, that although horses were introduced into these islands fifty years ago, the first pacers appeared within the past fifteen years, and are now very common and increasing in all parts, especially where the breed is most deteriorated, seems to give credence to the idea that a pacer is somewhat of an ignoble animal.

The history of the several importations of horses and of their increase throughout the islands would be interesting, but the want of records renders the collection of facts a difficult task, which the committee have not found time fully to perform. We believe the first horses were brought to the islands in 1802 by Capt. Shaler, in the Lilly Bird, who presented them to Kamehameha I. Capt. John Meek, Jr. imported a gray mare in 1822, and about the same time a mare of English breed was imported by the Rev. Mr. Ellis, Missionary from Tahiti. She was purchased by Laanui, and her stock are well known as the best in Waialua. Horses were taken to Waimea, on Hawaii,

in 1830 for cattle hunting, where they were left to breed, and thrive well. Among them were the progeny of Kalakini, a dappled gray, and another California horse imported by French & Pelly of similar color. To this last may be ascribed the deep chest and high fore quarters of some good Waimea horses. On Kauai, horses were first introduced as a present to King Kaumualii, after which the then fashionable calicoes were introduced by Governor Kaikeioewa. The Kauai horses are now very numerous and greatly degenerated.

The committee have taken particular notice of the qualities, of tameness and docility natural to all the progeny derived from imported stock, when compared with the young of our native horses; and as these qualities are combined with life and spirit they are regarded as highly important to the islands, especially as the horse is beginning to be more frequently used for draught. Improvements in the breed of horses must necessarily be slow. It is a work of time —of years— to decide upon the best crosses for the improvement of a breed of horses, which like that of these islands, has vastly deteriorated by neglect, bad management and hard usage. Besides, since most men are, or fancy themselves to be good judges of horse flesh, and since there are some who are apt to take offense when their knowledge is called in question, or their opinions doubted, it does not become your committee to express any decided preferences of their own, on this occasion.

Your committee notice with pain the continuance of the barbarous custom of training young horses, *breaking in*, as it is called, which has been taught here by people from Mexico and California. The first lesson is a lasso thrown over his neck, upon which the frightened animal pulls until he is strangled and falls down, or is thrown down by means of another lasso around his fore legs. The colt is then haltered, blind-folded and backed by a rider who frequently ties himself on to keep his seat. Sometimes he uses a heavy Spanish saddle from the first, and he always is armed at the heels with cruel spurs which are used most unsparingly. The colt exerts himself to the utmost either by running or attempting to unseat his rider, until his strength is exhausted, and by degrees he comes to submit to this hard usage quietly. But it is always at the expense of his vital energies to so great a degree that six months of rest in the pasture are often required to restore his flesh, while the injury to his limbs and wind remain with him for life.

How different this from the practice in England and the United States of America. The Turks and Arabs excel perhaps all other people in the art of cultivating a good understanding with their horses. An English Ambassador at Constantinople two hundred years ago, wrote as follows: "There is no creature so gentle as a Turkish horse, more respectful to his master or the groom that dresses him.— The reason is because they treat their horses with lenity. I myself saw in Pontus, passing through a part of Bithinia called Axilos, towards Cappadocia, how indulgent the countrymen were to young colts, and how kindly they used them soon after they were foaled.— They would stroke them, bring them into their houses, and almost to their tables, and use them even like children. They hung something like a jewel about their necks, and a garter, which was full of amulets against poisons, which they are most afraid of. The grooms that dress them are as indulgent as their masters. They frequently sleek them down with their hands, and never use a cudgel to bang their sides, but in cases of necessity. This makes their horses great lovers of mankind, and they are so far from kicking, wincing or growing untractable by this gentle usage that you will hardly find a masterless horse among them."

"The Turks love to have their horses so gentle, that, on the word of command they may fall on their knees, and in this position receive their riders. They will take up a staff or club upon the road with their teeth, which their rider has let fall, and hold it up to him again; and when they are perfect in this lesson, then, for credit, they have rings of silver hung on their nostrils as a badge of honor and good dicipline."

The committee would be happy if the attention of Graziers was more thoroughly awakened to the importance of a radical change in the manner of training young horses, believing it would greatly aid in improving the qualities of the animal. But until grazing lands are properly enclosed it is not easy to check the tendency to run wild particularly among large herds.

The existing laws, for the regulation of fences, grounds, trespass

and damages, are so extremely defective as to be as liable to work evil as good to the interests designed to be protected. It is not easy to find any one so well acquainted with the condition of both the agricultural and grazing interests of these islands as to be able to frame a law which would work equal justice to all. The committee believe that the practical knowledge of the Agricultural Society might be made available in some way for the advantage of our Legislators, by means of reports, or discussions, or by the labors of a suitable committee appointed to frame an Act, upon this subject, to be submitted to the next Legislature.

Your committee take the liberty of remarking, although with some diffidence, that in their opinion the premiums offered for horses, are by no means equal to the importance of the animal, even in an agricultural point of view, when compared with other objects for which premiums are awarded. The exhibitor is to receive only a *certificate* by way of encouragement for bringing forward his colt or filly which he has raised with much care and expense, or his team of horses which he has trained to the plough, provided they are the best offered, while the lucky exhibitor of the best six fowls is to receive a *silver medal.* The committee, knowing that such a distribution of prizes is considered unjust, have reason to fear that some of the best animals will not be brought forward at this fair, and they hope the Committee on Premiums will hereafter, give a little more encouragement to this department of agriculture.

G. P. JUDD.

REPORT OF THE COMMITTEE ON SWINE.

Mr. President and Gentlemen of the R. H. Agricultural Society:

As it has pleased you to appoint me Chairman of the Committee on Swine, I shall therefore do my best to develope my limited experience and opinion concerning this subject, as it affords a large source of profit, as well as comfort to the farming community at large, and as I now conceive, the correct light for us to look at this question is, at

the present time, in a commercial point of view at leas; that we want to arrive at, if possible, the most efficient method of producing the largest amount of good pork at the least possible expense, so as to enable us to export this article of commerce in every shape, and not to be obliged to import such a large amount as is brought into this country annually from a foreign market. And I cannot see any just reason why this theory should not be worked out eventually, in practice, provided that the necessary provisions are taken in the first outset, in procuring a suitable location, and proper attention is paid to the stocking it with the best of foreign breeds, that possess the requisite capabilities for accumulating the best pork on the smallest amount of food; and that this kind of hog can be produced by a cross of breed with the American and Chinese, as the latter are good feeders and noted for its fineness of flesh, the former being also noted for its bulk as well as its great facilities in fattening on a small amount of provender.

Concerning location, I would advise those interested in this matter to allow their hogs to run at large, and if possible that run to comprise a ravine that abounds with wild apples, guavas, &c., as those fruits afford food for hogs one half the year at least, and as security against the swine going wild, accustom them to be herded at the sound of a horn, and entice them into a pen every night, by dealing out some luscious kind of food, such as sour milk, corn, &c., &c., by this means I think that the largest amount of pork can be raised at the smallest amount of expenditure, consequently we arrive at just what we want, at the least amount of trouble.

There are of course several other methods of raising and fattening pork, in which location, opinions, &c., &c., depend, all of which I presume this agricultural community are well aware, for any man that knows what a hog is, knows what to feed him on, consequently I consider it useless to dwell on this subject any further, than to refer those that are wishful of obtaining much more practical information on this subject, than I am capable of giving them at the present time, to that most excellent work, now in the hands of our Librarian, the second volume of the Farmer's Library on Animal Economy, and to

conclude with a proposition that this Society should form a committee on the subject of curing pork, hams and bacon, and offer a premium for the best article.

Respectfully submitted by

ROBERT JAMES HOLLINGSWORTH.

REPORT OF THE COMMITTEE ON FENCING.

To R. G. Davis, Esq., Chairman of the Committee on Fencing:

DEAR SIR:—Allow me to mention my experience with wire fencing. I find that wire placed 6 inches apart, with the posts 8 feet distant, is not sufficient to keep in sheep and hogs, for although you may tighten the wire all that it can possibly bear, it will stretch and yield to the pressure of small animals that can get their heads through; to obviate this difficulty, I propose placing two pickets, pependicularly, in the intermediate space from post to post, and running the wire through them, so as to shorten the distance of expansion, thereby only having 2 feet 9 inches to expand in the place of eight feet; by this process I think that wire fencing can be made to keep out sheep and large hogs, at a small additional outlay, as a four post picket merely requires to be sharpened and drove a foot into the ground, thereby having 3 feet above ground, and that is high enough to prevent sheep, &c., standing on the ground to force their way through.

Respectfully submitted by

ROBERT JAMES HOLLINGSWORTH.

To the Chairman of the Committee on Fences:

DEAR SIR:—At the present time nothing so much impedes the march of agriculture at these islands as the want of fences, a want which ought not, and need not to exist any longer.

Were there insuperable obstacles in the way of constructing good fences to any desirable extent, less might be said on the subject, for a bad case is best managed by silence. But such obstacles do not seem to exist except in imagination. True we have no boundless forests to

supply us timber for fencing, nor do we need them. A wooden fence is always expensive, and in this country would often be destroyed by fires. It is also a serious objection to a wooden fence that "it commences decaying the moment it is made," and it rapidly decays. Nor is it certain that wire fences will be much better, as without great care they will rust rapidly, and unless made much heavier than strength requires while they are new, they will soon be rendered useless.

We want a fence which will all the while be growing stronger; in fact, which will "grow while we are asleep." There is no longer a doubt that such can be made in most places throughout these islands. But at the same time it must be acknowledged that it is an outgo—it costs money—or at least labor, and does not of itself yield an income. It must also be acknowledged, that the predilections of many of us, consequent on long habit, are in favor of a good stone fence, and where stones are plenty, it is, no doubt, the readiest and best way of fencing. But it is expensive—more so than most are ready to adopt at the outset.

For this country the cheapest, most desirable, and at the same time most effectual of all practical fences is a living hedge. And, if we except the most arid parts, no country perhaps offers greater facilities for growing it.

As a general thing the less arid parts of the islands may be classed under two heads in regard to hedges, viz: those parts where the prickly pear will flourish, and those where from too much rain, or too great altitude, it will not grow well. For the latter situations there are a variety of shrubs or trees which no doubt would make good hedges. Among the rest we hope much from the Osage Orange. But where the prickly pear will grow well, it is, no doubt much preferable to any plant now in the country. In small enclosures, and the vicinity of dwellings it would be found too troublesome, and would take up too much room, but for large enclosures and general fencing it could not be surpassed.

The best season for planting a prickly pear hedge is just before it throws out its leaves, which it does annually in May or June. At that time the leaves are filled with juice from the winter rains and will

speedily take root. They however, require careful handling at this time to prevent much bruising and breaking, else they will rot—a hint which may put to rest the apprehensions of those who greatly fear the spread of this plant. A common broad oo or whale spade makes an excellent instrument for cutting the leaves. They may be put in a cart, or wheel-barrows by a shovel or manure fork and transported to the place where they are wanted. All the preparation the grouud requires is the removal of stones, if they are in the way, and the clearing away of all brush and trees, for this plant will not bear the least shade. On this account it is not well to disturb the soil, or even to clear away entirely the grass, lest a crop of weeds should be encouraged to put up and shade the young plant, thus retarding its growth or causing it to grow weakly.

The ground prepared and the leaves on hand, all that remains is to lay down a belt of them about a yard wide, as close together as they can be laid on their broad sides. They now require watching for a short time that they may not be removed, and any which decay must be replaced by those which are sound. Every thing which would shade it must also be kept away. On this account it is rather desirable than otherwise that cattle be allowed free access to it, as they will keep the grass, &c., away, and are generally careful not to meddle with it. Goats and swine must however be excepted—they will be apt to ruin a young hedge. One cannot be too careful about bruising or puncturing the leaves, as they are very likely to rot if so treated. In a few weeks afer laying down they will all be found tied fast by a root which strikes down from the middle of the leaf, and soon after young leaves appear. Should the season be dry the leaf will gradually form itself into a cup which will catch the small showers, and thus nourish itself and strengthen its root, even if it throws out few or no leaves. It must be a dry season indeed which will destroy it.

Great care is necessary to prevent gaps in the hedge. These can only be prevented by care while the plant is young. If the gaps are allowed to remain till the plant becomes large, that which is already grown will shade any that may be planted near, and prevent its becoming strong. It will also have pre-occupied the soil with its roots, giving no chance to the new plant.

It is I believe necessary that all kinds of living hedges grow up ogether.

Under the most favorable circumstances, about three years will be equired to produce a hedge of Cactus which will turn all kinds of nimals. The winds may blow and the rains fall, but the fence will ill remain—and increase. It will not rot like the worthless adobie, hich falls just when you most need it. It will not tumble, or be umbled like the stone wall, and should it incline to spread, one-fourth f the cost necessary to keep any other fence in repair will keep within bounds.

E. BAILEY.

REPORT OF THE COMMITTEE ON SHEEP.

To the President and Gentlemen of the R. H. Agricultural Society:

GENTLEMEN,—Since our last meeting the question with those interested in sheep has been, what shall we breed for—mutton or wool? The mutton party do not quite agree with the gentleman who so ably reported last year that "we can raise sheep enough on these islands o make mutton a drug." They say the amount of land adapted for heep-walks on this entire group is not so large as some people, who ave not gone into the matter, imagine; for a great part of the plains nd uplands are covered with grass highly injurious to lambs and even ull-grown sheep. This grass bears a seed which attaches itself about e nostrils and eyes in a way highly irritating to the animal; besides hich it sometimes works through the fleece and is found buried half n inch deep in the fat on the back. From this they argue that the umber of sheep supported at a profit will never be extravagantly great. hen again, they hold that for a long time to come, California will arry off a large quantity of our mutton, for sheep stand a voyage ell, and steamers and Ericssons will take them across with great ase to themselves and perhaps profit to those who ship them. Also hat the consumption of the article is increasing in our market, whilst he additional number of clippers and other passenger ships that begin o touch here, and the steamers that will touch here by and bye,

during the course of their inter-Pacific voyages, will carry off considerable numbers for sea stock.

The wool faction on the other side, are not quite so sanguine about all this, and maintain stoutly that the market can be drugged and in all probability will be so before very long. That real Umpire, Time, must decide between them.

One of your committee (Mr. Cummins) is looking for a fine breed of South Downs from Boston, due in about a month by the Matanzas, from which he expects to stock his land with sheep of good shape, fine wool and a very good average weight of well-flavored meat. These sheep are said to be hardy and to fatten readily, and will probably take up a central position between the extremes of wool without mutton and mutton without wool.

Mr. Moffitt, of Koolauloa, has hitherto infused more new blood into his flock than any other raiser of sheep on these islands, and his stock shows more improvement accordingly. By H. M.'s Yacht Harriet, he introduced six fine Merinos, which, added to those he had previously procured, give him at present a complement of twelve imported sheep of that highly valued breed. As to the quality of the wool he will produce there can be no doubt, nor does it appear but that with judicious crossing the carcasses will quite reach to what the butchers consider a profitable weight for the shambles.

Let sheep farmers remember three great points necessary to their success and your committee think they will do well for themselves and become every year more valuable members of the community. Let them—

1st. Shear systematically and well.

2d. Tame their sheep—whatever it cost, tame them.

3d. Fight with the dogs; hate them; despise them; petition against them; shoot them; poison them.

JOHN MEEK,
THOMAS CUMMINS,
CHARLES GORDON HOPKINS.

REPORT OF THE COMMITTEE ON PROCURING SEED FROM THE SUGAR CANE.

Hon. William L. Lee, President of the R. H. Agricultural Society:

SIR:—As Chairman of the committee to obtain plants from the seed of the sugar cane, I regret to be compelled a second time to present an unsatisfactory report.

On Hawaii Mr. Pitman has been prevented from making any experiments to test the process suggested by Mr. Teschemaker, for obtaining germinating seed from the cane, he having been unable to find a suitable spot in his neighborhood in which to attempt them.

I subjoin a letter received from Mr. Pitman, from which it will be seen that he has little faith in the practical advantages which would follow success.

From Dr. Baldwin, of Maui, and Dr. Lathrop, of Oahu, the other members of the committee, I have received no report.

On Kauai, I have made some experiments, following as nearly as possible the directions of Mr. Teschemaker, but I am sorry to say that they have as yet met with no favorable result. Still the pursuit is an interesting one, and I do not yet despair of final success.

I am by no means sure that the varieties of cane which we have are the best possible for our soil and clime. The agriculture of the world may be enriched by the introduction of new varieties of the cane.

This is a subject well worthy of the continued attention of the Royal Hawaiian Agricultural Society.

Most respectfully, your obedient servant,

EDWARD P. BOND

To E. P. Bond, Esq., Chairman of the Committee for Producing Sugar Cane Seed.

The methods to be pursued in order to make the sugar cane produce seed as laid before the Society last year by Mr. Teschemaker, is incompatible with the soil of Hilo. It would require a large capital to enter on the experiment; a single individual could not travel over the island to find a fitting soil, and even should it succeed in our place

it would require some years to produce a sufficient quantity of plants to form a plantation in any other district than where it originated. The first variety of sugar cane, at least the one longest known, is the Creole, which grows best in a moist soil, and is the best adapted to Hilo; the next is the Tahitian cane, thriving and yielding best in a dry soil, such as all along the western side of Hawaii. But even should any one be so fortunate as to raise cane, the seeds of which will ripen in Hilo, the same seeds would not ripen in Kona—neither would the seed raised in Kona produce plants in Hilo—the soil and climate being so very dissimilar. The sugar cane flowers as well here as in any part of the West Indias, but here as well as there the seeds are abortive. There is but one part of the world in which the cane flowers produce seed, and that is in the East Indias, the cane of which country would not pay the cultivator, even should it chance to grow—at least all the experiments in America and the West India Islands to propagate from seed have failed. As to variety we have here four of the Arundo Saccharifera, but what their botanical definitions are I do not know. The most prolific in juice and largest sized is the red cane; next the yellow cane; then the yellow and green striped; and last, the small red cane called "Ohi;" which latter, although the smallest, is by far the sweetest. The reason why the planters in this district prefer the second variety is, that on account of the humidity of Hilo, the red cane gives out its coloring matter in grinding and thereby produces a sugar of a darker color than that of the yellow cane, on account of its holding a larger portion of Albumen in solution. Therefore I am of opinion that cane propagated from seed would require a greater amount of capital and labor than if produced from the buds.

I have the honor to be Sir, your obedient servant,

B. PITMAN.

REPORT OF THE COMMITTEE ON BIRDS.

Mr. Severance from the Committee appointed to procure Insectivorous Birds, made the following report:

I will not venture to speak on behalf of the committee, because I hope some of them have done more than I have; but having consulted with several of the members, we came to the conclusion that we could not take the responsibility of expending any money in procuring birds, at least until some laws should be passed to protect them from destruction when obtained. Fire arms have so far come into use among the natives, that while there are no penalties and no laws, and not even a public sentiment against shooting birds, any imported bird being rendered tame by confinement, would immediately attract the attention of native boys, and be in great danger of being shot or otherwise killed.

There are but few birds on the islands, but there are some of the most beautiful kinds; and while these are destroyed by hundreds for the amusement of the sportsman, foreign or native, it is not thought expedient to expend much money in importing foreign birds of no greater utility. The Kolea or Plover, is perhaps as useful in destroying insects, and especially the pelua, as the robin or any other bird of the continent, and yet many of these birds are shot or scared away from cultivated lands, instead of being allowed to range over them free from danger.

There is but one bird of prey which has attracted my notice, and that is a hawk or owl. It has the appearance of the owl, but it flies about at mid-day in pursuit of prey, and never in the night, that I am aware of. It sometimes catches young turkeys and chickens, but probably much more than compensates for this by destroying field mice, which seem to be its principal food.

We are not to forget that we have already the most valuable birds among us, viz: turkeys, hens, geese and ducks. Of the last three we have many varieties. The flesh of the native goose is very good, and so is that of the Chinese goose. The eggs of the latter are large and of excellent quality, much superior to those of the duck or the European goose. The China goose like the China fowl has a heavy body and short wings, and can easily be confined by close fences. The native goose flies with as much facility as the American wild goose.—

It is not so large however, being the size of the brant. But this is diverging from the duty prescribed to the committee, though we may be permitted here to refer to the well known fact that all these domestic fowls are most efficient destroyers of a great variety of insects and their lavae, and were it not for them many localities would swarm with lizards, spiders, centipedes, scorpions, roaches, &c.

Noxious insects and noxious or useless plants find their way to these islands in boxes and bales of merchandize; but birds never come in that way. When we take pains to import them we should be careful to leave behind those which would do much mischief. The class of insectivorous birds is a very large one, including the greater number of small birds, though many of them are omnivorous, eating vegetable as well as animal food. Some of these are very mischievous, pulling up the newly planted corn or other grain while it is geminating, and devouring the ripened grain in great quantities. Among these the pigeon, the crow, black bird and blue jay, have a bad reputation, while the marten, king bird, and other fly catchers destroy the honey bee, and the woodpeckers select the sweetest apples and best cherries. The robin also is very partial to cherries in their season, and we suspect would eat the fig and banana, but his favorite food is the ant worm, and hence his utility.

The bluebird, the sparrow, the Baltimore oriole, the scarlet tanger, the thrush, the mocking bird and the wren, are among the birds deemed harmless; most of them are singing birds, and all feed on insects. A great number might no doubt be added to the list. All these we presume could be obtained in California or Oregon, and perhaps the best way to obtain them is to offer a bounty for them delivered here.

There are other birds which would be useful. The ortolan and the woodcock are greatly esteemed for their flsh. The canvas back duck is highly prized. Both feed on worms. The white stork is a famous rat catcher, and devours reptiles, offal, &c. Being like a turkey buzzard a capital scavenger, he is in some countries protected by law, and becomes as tame as any domestic fowl. He spends the summer in Europe, and the winter in Africa. There is however, little need of scavenger birds here, for the fowls, the dogs and the ants soon devour all putrid animal matter left above ground.

Without taking up more time on the subject, we would recommend that the Society look to the preservation of the native insectivorous birds, and offer premiums for such foreign and harmless insectivorous birds as can be obtained without great cost.

REPORT OF THE COMMITTEE ON STATISTICS.

To the President and Members of the R. H. Agricultural Society:

I regret that for want of time I have been unable to procure data of sufficient interest to the Society to form a report upon statistics worthy of your consideration.

As the Society have done me the honor to publish in the third volume of transactions, a table of the exports of the principal articles of production from the year 1844 to 1851, inclusive, and the value of the total domestic exports for each year, I now offer the following as a continuation of that table.

	Average for three years, 1849, '50 and '51	1852.
Sugar, lbs.	475,029	729,877
Molasses, galls,	36,240	46,136
Syrup, "	45,229	35,375
Coffee. lbs.,	87,949	117,210
Salt, bbls.	4,195	7,118
Irish Potatoes, bbls.	32,246	8,223
Sweet " "	5,718	6,068
Onions, "		
Arrow Root, lbs.,	7,710	21,444
Hides,	2,342	1,019
Goat Skins	28,049	29,779
Tallow, lbs.,	8,564	6,294
Total value of *all* the exports *as cargo*,	$222,651 77	$129,613 69

The very large shipments of Irish potatoes and other vegetables at high prices in 1850 and the early part of 1851, and the small shipments and low prices of 1852 make the average value of exports appear decidedly unfavorable to 1852, though most of the valuable and reliable products show an encouraging increase.

Of sugar, potatoes, swine and poultry there have been considerable quantities shipped to California since January last, and they have uniformly commanded fair paying prices. During the last year a new article of export has been discovered which at one time seemed to

promise to be an important article in our commerce, and which is still in demand, though not in large quantities or at the high prices it brought at first, I refer to the "Pepeiao Akua," a species of fungus, found upon the trunks of Kukui trees. About 5000 lbs. were sent to San Francisco last year.

Trusting that the gentlemen on the same committee with myself will have something to offer you more worthy of the name Report, than the foregoing, I will only add that wool, an article which might be, and probably will be produced here in large quantities, had not up to the 1st January, 1853, had a place among our exports. Since January, there have been 4,395 pounds, the clippings of Messrs. Macy & Louzada's flock, shipped to the United States, and there is now at least one other lot ready for market.

CHARLES R. BISHOP.

REPORT OF THE COMMITTEE ON TANNING.

It was the intention of the Chairman of the Committee on Leather and Tanning to have collected and presented in this report accurate and complete information in regard to the tanning business at these islands, but such is its limited condition that its statistics would furnish no satisfactory basis for general conclusions.

The Chairman will therefore present merely a few of his own convictions on this subject, together with a valuable letter from the member of the Committee from Hawaii.

There appear no good reasons for our depending mainly upon a foreign country for leather, boots and shoes.

Hides of excellent quality, fresh in many cases, and uninjured by the processes of drying and voyaging, superior barks, lime, a warm climate favoring and facilitating the chemical combinations which produce leather, eligible situations where hides, bark and water are brought together in a business that requires only a moderate capital, where the operations are of comparative simplicity, where the product finds a speedy and remunerative sale, and finally where the labor is eminently healthful, these are existing facts among us which indicate that the manufacture of leather would be advantageous both to the individual and to the state.

The capacity of our own market need not be the measure of out production.

With an article, the raw material of which costs us but half the amount paid by the American manufacturer, and at a distance from market only half as great, we can undersell him in California; and neither Manila, China nor South America will come forward as competitors; our only limit here is our ability, and that ability measurably determined by our zeal and energy.

Our well-tanned sole leather is of the first quality, excelling the imported article in softness and durability, the large proportion of tannin compared with the extractive matter in our barks contributing largely to this favorable result.

In the communication above referred to, the business of tanning is represented as barely affording a subsistance to the tanner. Whilst this may be correct in reference to particular localities and very limited operations, it can scarcely apply to favorable situations, with suitable and adequate appliances. As in other manufactures, a respectable amount of capital and preparation are essential pre-requisites to success.

The leather business generally, at the islands, has hardly advanced proportionably with other manufactures. Some of its processes have not yet been introduced, but it is to be hoped that the requisite skill and appliances will soon find their way among us.

Probably our yearly consumption of leather in all its forms will not fall much short of $100,000 in value, and this consumption is steadily increasing.

For this, our own herds, forests and coral reefs could furnish the material, and our people manufacture it, thus retaining our money at home and enriching our men of enterprise, engaged in this laudable branch of business.

Respectfully submitted,

J. HARDY.

To J. Hardy, Esq., Chairman of the Committee on Leather & Tanning:

SIR:—That leather can be as well tanned and prepared on these islands for all the various uses to which it is adapted, the specimens which I have the honor to lay before the Society at this meeting fully prove; and although it is not to be expected that it can compete with

the foreign manufacture, still I think when all the difficulties attendant on the want of mechanical appliances are considered, the presented specimens will meet with their just meed of praise. The difficulty which now exists in tanning leather so as to render it profitable is—the procuring of bark. The Konohikis demanding so high a price for permission to get bark; the distance and time required to procure it; the payment of hired labor, and the low price which leather brings, barely suffice to procure the common necessaries of life. Neither have we any lime on this side of the island; it has to be brought from Kawaihae or Oahu, which forms a heavy item in the necessary expenses. The bark has also to be pounded by hand as we have no mills, nor mill-wrights to construct one; thus at the present time in this district, the tanner labors under the greatest difficulties; and should the restrictions on getting bark be increased, this essential branch of industry will naturally be paralyzed. The purchase of foreign bark if imported, unless it be in such quantities as to ensure a constant supply, and be procurable at so low a rate as to enable the tanner to compete with foreign leather, would be of no avail.

The barks mostly used in tanning are the Koa and Ohia. Many others have been used and produce a very handsome leather, but as the trees are small and scarce they are not used except to tan a few skins of a lighter color for any particular purpose. The strongest bark—that is the one which contains the most tannin—is the bark or the root of the Kukui or Candle Nut tree. It bears the same proportion to Koa bark, as Catechu does to Oak bark, that is, one pound to ten. Ohia bark gives a lighter color to leather than Koa, and does not contain so much tannin, and the liquor is always the better for a little Kukui bark. Shumach or the Nanelehau gives an elegant color to kid skins. All leather tanned on the islands is in quality equal to foreign leather, but for want of the necessary appliances for the finishing, has not the same completed appearance; though for use and wear it is every way equal to the foreign importation.

I have the honor to be sir, yours very respectfully,

B. PITMAN.

REPORT ON GARDEN SEEDS AND FLOWERS.

"But among all the methods of enriching one's self, there is no one better, no one more profitable, and pleasant, and agreeable, no one more worthy of a man and a gentleman, than that of manuring and tilling the ground."—*Extract from a communication of Cicero, to his son Marcus.*

Having been appointed with several others, to report upon the subject of "Garden Seeds and Fruits," I deemed it advisable to notify the other members on the committee; when, to my surprise, I learned that Mr. Duncan, (a professional gardner, and who should have been the Chairman of this committee,) had gone to Australia, Mr. Bowlin to California, while Mr. Kinney, residing in Kau, on Hawaii, would not visit Honolulu, at this season, hence only Mr. Cleghorn and myself remained to discharge the duty of the committee. How it should have occurred that my name should have been placed upon the committee, before that of Mr. Cleghorn, I cannot imagine, for in all matters, pertaining to seeds, fruits, &c., I should be quite willing to sit at his feet and have him discourse, like Solomon of old, who "spake of trees from the cedar that is in Lebanon, even unto the hyssop that springeth out of the wall." 1 Kings, 4: 33. As it may not be known to some present, I would remark that Mr. Cleghorn, is a seed-man, by profession, and I doubt not could, and would if requested, furnish much useful information upon this subject, to the Society. I am happy to learn that he has prepared a few remarks, which he will read on this occasion.

To prepare myself for writing this report, I concluded not to examine books written by man, but go forth and study the laws of the "book of nature," as they might be turned over and explained, by more of our most practical gardners in the vicinity of Honolulu.

I first visited the small but well cultivated garden of the proprietor of the French Hotel, Monsieur Victor. The small patch of land, which he has brought under cultivation shows what can be done, in the very heart of Honolulu, where the peculiarity of the sandy soil, resting upon a layer of volcanic cinder, renders cultivation exceedingly difficult, except during the rainy season. I found he had growing in his garden, beets, turnips, radishes, beans, corn, &c.—He complained of the want of good seed, but informed me, that he had made arrangements for a good supply of garden seeds, to arrive from France. The example of Mr. Victor, as a practical gardner on

a limited scale, is well worthy of the imitation of every house-keeper in Honolulu. The dwellings of the foreign residents, are surrounded with abundant land, wherein to raise all the vegetables necessary for their families *provided the spade, hoe and rake are skillfully exercised by the inmate of the dwelling.*

I next visited the premises of the veteran gardener, in the vicinity of Honolulu. I refer to Mr. Alexander Adams. I found growing in his garden, viz: parsnips, carrots, beets, cucumbers, radishes, turnips, cabbages, &c. Mr. Adams finds his greatest difficulty to consist in his inability to obtain good seed. He expressed the opinion, that, he thought one reason why the seeds upon the islands were no better, was this, that the vegetables were not allowed to remain in the earth sufficiently long. Mr. Adams is doing more for fruits than any other person in this vicinity. He has succeeded in bringing forward the Mango, having a fine tree seven years old growing near his house.—It now abounds with fruit. He has also succeeded with the lemon, the Chinese orange, the peach and fig trees. Of the latter he has three different species, in bearing, viz: the turkey, tree and bush fig.

Mr. Rice, at Punahou, furnished me with the following memoradum respecting vegetables raised at that location. The following are seed bearing:

Squashes,	4	varieties.
Melons,	3	"
Cucumbers,	2	"
Tomatoes,	2	"
Beans,	5	"
Carrots,	1	"
Radishes,	1	"

The following are non-seed-bearing: onions, turnips, beets, cabbages, kalo.

In my rambles, I have visited the garden of Mr. Montgomery, who has entered upon the business of gardening more energetically and scientifically than any other person in Honolulu. His remarks, in his late address, before our Society, indicate that gardening with him, is what it should be with others, a most pleasing and delightful employment. He has succeeded remarkably well in raising various and ordinary kinds of vegetables, but complains in strains similar to those of M. Victor and Mr. Adams, that it is extremely difficult to obtain even

a tolerable supply of good seed. He has ordered a supply from New South Wales, and hopes to receive them in time to improve the next planting season.

The subject of gardening has hitherto been most sadly neglected at the islands. It is only within four or five years that the subject received any attention, beyond raising a moderate supply of the most common garden vegetables. Efforts have not been made to introduce good fresh seed. The poor quality and limited supply of garden products is a common subject of remark and just censure on the part of strangers visiting our shores. I doubt not that more has been done for fruits and vegetables in California during the last three years, than has been done here since the islands were discovered.—At that period, the islands furnished but a few species, including kalo, sweet potatoes, bananas, ohia apples, &c. The catalogue is now much enlarged, but the supply of the rare species of fruits and vegetables, is upon the most limited scale. There is one species however, for which the soil is well adapted, and the supply most abundant: I refer to the luscious watermelon!

In pursuing my enquiries I have become acquainted with the existence of one new product of our forests, which is now used for food among the Chinese, and which has, during the last year, been exported. I refer to the *Pepeau Akua*, or species of Fungus or Lichen, growing upon the Kukui trees, in wet and damp parts of the islands. On this island it has been gathered, principally in the vicinity of Waialua. The Rev. Mr. Emerson informs me that it is quite extensively used by the Chinese, and that it is by no means, an unwholesome or unsavory dish when properly prepared. He has several times eaten it. It is especially worthy of attention, in as much as it has become an article of export. The following items I copy from the books of the Collector of Customs, in Honolulu, relating to the amounts of this article exported:

August	1852,	exported	from	Honolulu	to San Francisco,	550 lbs.
October	"	"	"	"	"	1,051 "
November	"	"	"	"	"	1,390 "
December	"	"	"	"	"	1,860 "
February	1853,	"	"	"	"	5,105 "
"	"	"	"	"	"	3,967 "
"	"	"	from	Lahaina	"	550 "
						14,473

I learn that the article has brought as high as forty cents per pound, in the San Francisco market, although so high a price could not be depended upon. Six cents per pound is the usual invoice price.

In regard to one branch of the subject assigned to this committee, I have written but little, and for the very good reason, that hitherto but little attention has been paid to it upon the islands. I refer to *fruits*. The fig and the grape have received the most attention, but in looking over the schedule of subjects, I perceive that both of these are assigned to other committees. I cannot however, refrain from refering to a single fact, in regard to the fig tree; illustrative of the point, that ship masters, may do much in the way of transferring fruit trees from one part of the world to another. In the year 1843, my neighbor Capt. Penhallow, took much trouble to bring from "St. Catharines," to Honolulu, a slip of the Turkey fig. He succeeded in landing it in a tolerably healthy state. It was given to another neighbor, of mine, Mr. Ladd. who planted it near my study door, and hence, I have had a good opportunity to watch its growth. At first it required no small amount of labor and extra watching to cause it to put forth leaves.—For a season, serious fears were entertained, that it would droop and die, but careful nursing and pruning, eventually succeeded in bringing the tree to maturity. Ten years have now elapsed, and what is the result? From that one tree, almost a countless number of slips have been cut, which are flourishing in almost every garden in Honolulu, and other parts of the islands. Year after year, visitors have clipped off the young shoots, but still the parent tree continues to put forth a fresh supply; thus nature verifies the saying of Solomon, "There is that scattereth, and yet increaseth." I think that both the person who brought this fig tree from St. Catharines, and the one who nursed it after its arrival, are deserving of the thanks of the community, and a medal, at least, from the "Royal Hawaiian Agricultural Society."

In concluding my report, I am happy in being able to present the following communication from G. Wundenberg Esq., late of Hanelei, Kauai.

All of which is respectfully submitted,

S. C. DAMON.

To Rev. S. C. Damon, Honolulu:

DEAR SIR.—With pleasure I comply with your request of this evening to furnish you with an account of such fruit trees and vegetables as I have attempted to cultivate at Hanalei, and how far I have succeeded. I have paid a good deal of attention principally to the raising of fruit trees, but my time being limited, my remarks can be only short. Allow me to remark in the outset that Hanalei is rather a wet place, the soil very fertile, and vegetation very luxuriant.

THE ORANGE grows well at Hanalei when the tree has once reached a certain age, that is to say until it bears fruit, but it is very difficult to get the tree to that stage. After the seed is planted, in about six weeks the young tree appears and grows up sprightly until about a year old, when the tree will be about two feet high; but now the branches commence decaying and die off. Sometimes after new branches shoot out die off again and make place for new ones; during all this time the main stem is constantly increasing and singular as it may appear, it is nevertheless the result of years experience that the more attention you pay to the young tree the more you retard its growth. Experience has taught me that to raise orange trees you had better leave them entirely to themselves, without pruning or weeding them. Mr. Archer and myself have repeatedly talked on the subject, and he also can testify that we have found trees entirely overgrown by grass, in a by far more healthy condition than those on which all possible care was bestowed. It will require at least ten years before an orange tree begins to bear from the time the seed was planted. These Islands cannot compete with the Society Islands in the cultiva tion of oranges.

THE LIME.—Nearly the same is to be said of the lime that I stated of the orange, but the lime is rather hardier and commences bearing after the fifth year.

THE TAHITIAN LEMON.—The same remarks I have made on the orange apply here also. I never have succeeded to get them to bear. The only ones I have seen here on the islands were those exhibited this year by Capt. Adams.

THE LISBON LEMON belongs to the same tribe but does not grow to so high a tree as the three previously mentioned. When I left Hanalei

my trees, or rather bushes, were about six feet high, four years old and in bearing. The tree wants to be kept clear of weeds and otherwise taken care of by pruning, etc. It (the bush) resembles very much the tree in appearance and its nature.

THE CITRON, which is easily cultivated, thrives well in Hanalei. It grows into a straggling bush, long thin branches, is pretty hardy, and bears the third year. The above are all belonging to that tribe I have tried to cultivate at Hanalei.

In 1848 I planted at Hanalei first time

THE VI TREE, a Tahitian fruit tree, the fruit much resembling the mango in size and shape. The Vi grows well at Hanalei; when I left I had one tree about fifteen or more feet high, and appeared to do as well there as on Tahiti. I presume the tree will commence bearing when about seven years old.

THE MAPEE or Tahitian Chestnut, a slow growing tree with a beautiful shining leaf, quite yellow when young, afterwards dark green; fruit kidney shape, about four or five inches long, and about three inches wide; resembles much the chestnut which we use, and is used in the same way. I planted mine in 1849, from seeds. When I left they were about four feet high and doing well.

PEACHES.—Of peaches I had only one kind in bearing when I left, but I had about eight different superior kinds which I had raised from seeds from Valparaiso and New South Wales. I presume some of them will have borne fruit this year. Peaches are doing very well in Hanalei, and grow there to very large trees.

THE LOQUAT grows well at Hanalei so far as I have seen. I had only one tree grown from seed planted in 1850. The tree looked very healthy and was growing fast.

FIGS grow well enough in Hanalei but I think that they want rather a little dryer climate. The trees grow up fast but the fruit is liable to burst from the wet.

THE CHIRIMOYA I tried to cultivate for several years but without success. The tree would grow up about two feet high, and there remain stationary for years. Somewhere about 1850 Mr. Wilcox told me that he had experienced the same difficulty but had overcome it by planting it on a spot where the natives had had an oven. There all

the decayed vegetable matter and ashes must make the soil extremely rich; I tried the experiment with a tree which had been stationary for about two years, and the result was beyond expectation; in about six months the tree shot up to the height of about eight feet.

THE CUSTARD APPLE.—Two kinds from Tahiti, nearly the same as the Chirimoya, but more delicious in taste and comes sooner to perfection; I am told that they will yield fruit in Tahiti eighteen months after planting from seeds. I have tried them repeatedly, but all my attempts to cultivate them successfully have been vain.

THE DATE grows well there if kept clean and sheltered from the winds. I had two trees, but too small to expect fruit soon.

THE CACAO seems to grow well at Hanalei. I had planted in 1851 about twenty young trees from seed I procured from Mr. Manini's garden here in Honolulu. They were small yet, but from appearance they would do well there.

THE GUAVA.—I had three different kinds; the common guava, the sour guava and the white guava. All three kinds thrive alike well.—The latter kind is a particular pretty looking tree, and I rather wonder to see it not more about the houses of residents, as it is very ornamental.

THE TAMARIND does well there. I planted some trees in 1847, in the fall of the year; they were in blossom for the first time, in May, 1852.

THE PAPAYA OR PAPAA APPLE, grows well in Hanalei. This is a most useful tree; I have had always a large number growing on my place, and was glad to hear Mr. Montgomery draw the attention of the public to this tree in his address. They will commence bearing about eight months after planted from seed, and continue bearing for about four or five years, having constantly fruit of all sizes on them. The fruit of the young trees is the largest and best; I have had fruit of about ten inches in diameter. Allow me to draw your attention to the fact that there are a male and female tree; the former does not bear any fruit or at least very seldom, (I have had twice a male tree bearing fruit,) and care is therefore to be taken to plant only the female tree; but you cannot distinguish them until they begin to show blossom. In sowing the seeds the proportion of the male to the female

tree is generally greater, I should say about three male to one female tree. I have sown the seeds in a nursery in drills; when the young plants were about a foot high I transplanted them to their proper places, always three or four in a cluster, and when they showed their blosom left only one standing and cut down the rest. They are excellent food for poultry and pigs, but make also very good pies and tarts if a little lime juice is added to them.

The Bread Fruit grows well at Hanalei. I had planted a good number in my fowl yard, and they were doing extremely well; it is a most useful and very pretty tree. I planted them in the fall of 1847, and when I left in 1852, some of them were about 25 feet high. I expect they commence bearing when about seven years old. They want much care when first planted out, and have only succeeded by planting them out in the winter time and when it was very wet.

Bananas and Plantains grow very well every where, particularly if protected from the winds.

Pine Apples.—There were originally two kinds in Hanalei, one of brown yellow color and the other of a bright yellow; the former, the larger kind and perhaps on the whole, the most preferable. But I had latterly a few plants of the Tahitian pine apples, from Tahiti, a very superior fruit. They are propagated from succors and grow exceedingly well in Hanalei.

Besides, Strawberries and grapes grow at Hanalei; but I think they grow better in a more dry climate.

Of vegetables, all the different kinds, as yet cultivated on these islands, grow well there.

Irish Potatoes I have grown there, superior to any I have seen on the other islands. In the spring of 1852, I had a crop in my garden which looked as well as any I have ever seen in Europe.—Some of the vines were about six feet long and yet they yielded as abundantly as potatoes at home. Mr. Johnson and Mr. Archer, as well as Mr. Whitney, who have seen them, can bear witness to their appearance.

Sweet Potatoes do well enough on the hill sides, but on the whole it is too wet for them in Hanalei; they run to immense vines, but if not constantly cut down will not bear much fruit.

PUMPKINS, MELONS AND SQUASHES of all descriptions grow well.—Of the Pumpkin kind I have found the so called CROOKED NECK SQUASH, the one which yielded the most abundantly and is also, perhaps, the best flavored.

The VEGETABLE MARROW SQUASH grows well, and it has been much liked there.

Of CUCUMBERS, which also grow equally well, I had two kinds.

CABBAGES grow well there, and superior to any I have seen on Oahu; what is remarkable, is, that cabbage never goes to seed; it is propagated by the suckers from the old trunk. It does not deteriorate in quality by this process as might be expected; I have always raised better cabbage from those suckers than from imported seed.

CARROTS grow well and go to seed.

LETTUCE AND ENDIVE, do. do.

TOMATOES grows very luxuriant.

BEANS grow exceedingly well, except the brown bean which I have tried repeatedly, but have never succeeded to get more returns than the seed I had planted, and that rather deteriorated.

PEAS grow very well, but are very difficult to raise on account of the attacks from the ant worm, to which they are particularly liable. If there are any ant worms in the garden or the vicinity, they are sure to find their way to the young peas.

THE PEA NUT grows exceedingly well there, is easily raised, and yields abundant crops. I have raised as fine pea nuts as ever I have seen anywhere.

TURNIPS succeed, but are difficult to raise on account of their being attacked when young by a fly who destroys in short time a whole bed. Lime and ashes, which I have tried as a protection to the young plants, have not proved as effectual as might have been expected.

ONIONS AND CHALLOTS grow well, particularly the latter; the former want rather a more dry soil, and is liable to rot, if it comes on wet for a length of time, as it frequently does in Hanalei.

I have tried at various times, different other kinds of vegetables, but have been obliged to give them up again for want of labor.

SAGE, MARJORAM, THYME, PARSLEY, CELERY, and various other kinds grow well, and could be supplied from there easy, if conveyance

were not wanting. Nature has done for that place everything we could possibly expect, high as our expectations often run. It does not require any exertion to make the articles grow, but it requires a good deal of trouble to prevent the weeds, the growth of which beats any thing I ever have seen, from overgrowing and choking your vegetables.

The flower gardens of Hanalei are worth while seeing; I think they will favorably compare with any on these islands, and I think that Mrs. G. Rhodes, of Hanalei, who has always paid very much attention to Horticulture, has by great perseverance and diligence succeeded to gather as great a selection of flowers as you will see in any single garden on these islands.

But I must conclude from want of time at the present moment.—Please excuse this hasty scribbling; I just have given you what was uppermost in my mind, without regard to order or style.

Truly yours,

G. WUNDENBERG.

REPORT OF THE COMMITTEE ON GRAINS.

Mr. President and Gentlemen of the R. H. Agricultural Society:

Your committee are happy to report a very decided advance the present year on any former one in raising grain. The amount and very promising growth of wheat now nearly ready for the harvest, on East Maui, leads your committee to hope that the time is not distant when we shall see in our market *flour* of the Wailuku, Makawao or East Maui brand, instead of Richmond, Haxall and Gallego. We hope too to see the former in such abundance and at such prices as not only to drive the latter from our market, but that we may have no small amount to send to other markets.

On the subject of raising wheat allow me to submit to you a report from a member of the committee living in the wheat region, and himself a wheat grower.

"In reply to your request for facts in relation to the raising of grain, particularly of wheat, and for such thoughts as the subject may

suggest, I hasten to prepare something which you may embody in your report and present at the approaching meeting of your Society.

It is found by measurement that there are growing at Makawao, nearly 140 acres of wheat, owned by nine or ten individuals. Of these, 70 acres were sown broad-cast, by Mr. Henry J. G. Croswell. The wheat is of good growth and much of it headed out. In the sown field Mr. J. T. Gower, has small patches of Australian, Oregon and California wheat, of fair promise, and nearly 32 acres are standing on the land of the member of the committee who now addresses you. Some of it is nearly ready for the sickle. Indeed, but for the remarkably wet and cold season, a portion of it would have been harvested ere this. I did hope to send to your table this year some loaves made from our new grown wheat, but I am unable to furnish a single ripe sheaf. Of my own method of sowing I will speak hereafter. The next field in size was sown broad-cast, by Mr. John Smith, a Dane. He has 15 acres, of large growth and fine promise. Kileapa, a brother of Mrs. McLane, has 10 acres, and two other Hawaiians have each one or two acres looking exceedingly well. The remainder belongs to the following gentlemen, Messrs. Miner, Boardman, Sayre and Clark, and is promising.

This brief notice of the amount of wheat now growing at Makawao, will show a considerable advance on the same product of last year, and the advance would have been much greater but for the want of seed. Could this have been obtained I think 400 or even 500 acres would have been sown; probably 100 acres by the natives.

The capabilities of our soil on this part of Maui, are not small.—True we are somewhat pent up, having no "boundless continent," nor broad prairies, which extend far as the eye can reach, of which they of the old homestead boast. Nor do we need such prairies while we lack as now, cultivators of the soil and good markets.—Contracted as is our field, we have occasion to say as did mother Eve, at a certain time when *laborers* were scarce and *farms* were large, "Till more hands aid us the work under *our* labor grows."

The soil of Makawao is certainly *admirably* adapted to the growth of wheat oats and other grains. And as our fields are contracted and laborers few, it becomes our duty as it is certainly our privilege to make up in *fatness* what we lack in extent, to cause our small posses-

sessions to yield an hundred fold. If one acre can be made to produce what we now glean from five, as I verily believe to be possible, what a saving of time and strength may be realized. One great advantage as I suppose, of agricultural societies and agricultural newspapers, is the facilities they afford of communicating and reviewing knowledge, as to the speediest and most effectual method of subduing mother earth, and bringing her back to her pristine state of fruitfulness, so that the wants of all her numerous children may be supplied from her bounteous lap. You will excuse me, therefore, for giving you the result of another year's experience in raising wheat, in answer to certain questions propounded of late as to the best mode of preparing the soil, the time and manner of sowing, whether in drills or broad-cast, method of harvesting, preserving the grain from the ravages of insects, &c. &c. I take my own case, because as a matter of course, I know more of my own labors, discouragements and success than of others.

Two boys of 14 to 15 years of age, perhaps, of African and Hawaiian descent, have been my only helpers. They were handy in the management of oxen, and besides most of my ploughing, they took care of our cows and did the milking. The wheat land they ploughed, and after lying a while in the furrow to allow the Kolea, (a Hawaiian bird useful for the purpose,) to destroy the crop of Pelua, we harrowed the field and gave it the second ploughing. The Kolea gave the furrows another cropping, after which we prepared for sowing. Some four or five acres I sowed broad-cast. The remaider I sowed in drills or planted in hills. I commenced in December, the land being drilled or furrowed so thickly that it was benefitted nearly as much as though it had been ploughed the third time. I planted daily a small quantity only till February, when I sowed the remainder, but so cast it that the greatest portion fell into the furrows. This I then caused to be covered with the harrow. I cannot yet speak decidedly, but I *now* think this latter a good method of sowing wheat.

About the 10th of March I finished the sowing of my wheat, some 70 bushels. So far, so good. For a few nights I rested well, free from care. But I soon found that my charge required a constant, well nigh sleepless vigilance. The pelua, or cut worm, did me some damage, though not greater than I had reason to expect. Of course

there was no remedy but patience and submission for the ravages of this insect. But as we have no fences about our fields, watchfulness by day and by night, against the intrusion of cattle and horses, is indispensable. Scarcely a single night, since the grain became high enough to attract the attention of cattle, has passed, in which I have not taken the rounds by moon-light and star-light, or lamp-light, in the rain, or during a cessation of a few minutes, to ascertain the state of things in relation to cattle. The last thing before lying down, and the first thing at dawn of day, is a walk to the most exposed places of my wheat field. Need I say that this is sober *prose*, not a particle of poetry, in all this business of ploughing, sowing and watching. The author of the "Song of the Shirt" would be the man to give us the song of the wheat in its earliest stages. Yet, Mr. Chairman, there is another side to this story—a light side. There is the *poetry* of wheat-raising. I felt something of it from the moment I cast in the first handful of this *prince* of grains. The thought, like the tones of a well tuned instrument, thrilled through my bosom that I was engaged in a noble business. A business in which Paul or John might engage were they on earth, without a single twinge of conscience, or the shadow of a blush; a business, in a word, on which I could pray down a blessing from the Father of Mercies.

Is this applicable to *every* kind of agriculture carried on at the Islands? Is there no article produced here whose consumption is a *curse only*? And is the producer a friend to his adopted country? Does he give an equivalent when he exchanges the fruit of his field for money or articles of commerce?

Thus have I brought up my report of wheat-raising to the present time. None is yet ripe—none will be at the time of the Fair; but as I rode around yesterday and examined nearly every field and patch that is growing at Makawao, my pleasure was exceeding great. To see a hundred acres of wheat at a glance, waving to the winds, and this at the Sandwich Islands, caused me to bless the great Proprietor of all, and awakened the hope that I should see greater things than these."—*Extract from a Communication from J. S. Green.*

Corn.—For the best method of preparing the ground, time and manner of planting, and the subsequent treatment of this grain, your committee would refer to the report of last year as containing the best information on these points in their possession.

There is little doubt but that by ascertaining the best season for planting (which can only be done by actual experiment in each locality,) corn will flourish in every district on every Island in the group.

OATS are found to flourish well at Makawao and Kula, on Maui, and would doubtless do equally well in other favorable localities. Their culture, however, down to the present time has been too limited to furnish facts sufficient to base any well founded theory upon.

BARLEY.—This grain has been introduced, and so far as it has been tried promises to do well in our climate and on our soil."

Respectfully submitted,

WM. H. RICE.

MALU MALU, KAUAI, May 20th, 1853.

Hon. William L. Lee, President of the R. H. Agricultural Society:

SIR:—In compliance with your suggestion, you have herewith a statement relative to the cultivation of corn, at this place.

Nine acres were planted early in September last, in rows four feet apart, six grains of corn to the hill. Some shoots appeared above ground on the third day; on the fourth all were up. The weather was very favorable; clear warm days and showery nights. The corn met with no depredations from the cut worm, but grew rapidly; when two weeks old the caterpillars overrun it, extensively, and would have exterminated it, but for an active warfare waged upon them, by a force of men, women and turkeys, which thinned them, until the corn grew beyond their reach. When the blades became too coarse for their appetites, they transferred their attacks to the *core* of the stalk, where the turkies could not find them, and from whence they had to be dislodged by hand. In the fifth week, the corn was over knee high; the surplus stalks were pulled, leaving four to each hill; the earth loosened about the roots with the hoe, and the weeds kept down. In the tenth week, the corn was fit for the table.

Early in December, before all the ears had attained their full growth, a violent S. W. gale which lasted some days, laid every stalk in the field flat upon the ground, and in this state the corn was left, with almost continual rainy weather, until it was harvested in January, just four months, from planting The yield averaged about 16 bushels to the acre.

In the middle of December, a time said by people hereabout, to be a favorable season for planting corn, a twelve acre lot was planted.—The blades did not appear until the 5th or 6th day, and their growth was scarcely perceptible from day to day, until the end of January, when the whole field took a start; the weather meanwhile, having been stormy, from S. W., with much rain. The caterpillar did not trouble this field, and the cause of its failure must have lain in the wet season and want of sun, for, although, nearly every grain of corn sowed came up and attained finally a dwarfish growth, the majority of the stalks were too feeble to bear an ear. The ears that did form were not fit for eating until 16 weeks from planting, or for harvesting under 5 months. The crop was just one cart load.

On the 1st of March this field was furrowed between the rows of the standing corn and replanted; the blade did not appear until the 5th day, and grew afterwards very slowly. Much raw and cloudy weather. The cut-worm now made its appearance for the first time, and destroyed about one-half the field. The caterpillars came again and nearly finished the other half, attacking the shoots just as they came above ground and killing them so quickly as to render futile the efforts of woman and turkies against the worm. A few ears escaped and had every attention with the hoe, but were as backward in growth as the December planting, which would evidently have been the case with the whole had the worms not touched it.

This field has just been harrowed and cross furrowed; the weather is warm and favorable, and better fortune will probably result.

Early in February 3 1-2 acres were planted in a piece of low land with no better success than the attempt in December—a very backward and dwarfish growth. The yield will be very trifling. The better ears are only now fit for the table.

In the middle of April 11 acres were planted among the Kukui groves during warm, clear days. No shoots up until the 4th day. The cut-worm has destroyed about 3 acres of this field. The caterpillar has not touched it. What remains is now growing finely, and will probably yield well.

If this experience is to be any criterion, the winter months are not the ones for planting corn here. The cut-worm is to be dreaded in the early spring, and the caterpillar, perhaps, at all times during the year.

A corn-planter, imported by Mr Chamberlain, has been in use, and, one light horse and two coolies, covers 12 acres in two days, a much more rapid and satisfactory method than by hand. One man or boy is sufficient to attend the barrow, if the horse is properly broken.

A cultivator is very useful in keeping down weeds and in loosening the soil, and performs the work of a multitude of hoes in native hands.

Corn pulled in January, and kept loose in open barrels, has been free from weevils up to this time; and corn meal ground in March is still sweet.

From this brief and imperfect experience it is not possible to say that corn is a *safe* crop for the farmer to *rely* upon; but further trials, and a better knowledge of the proper season, may make its growth a profitable matter, if there shall be a ready market for it at Honolulu.

Very respectfully your obedient servant,

WM. REYNOLDS.

REPORT OF THE COMMITTEE ON NEAT CATTLE.

The committee appointed to report on neat cattle regret that their notice of the transactions in cattle farming of the last year, must be very meagre indeed. In fact they have nothing to say except that a very large number of cattle of all ages, sizes and qualities has been slaughtered, and that a few large lots have changed hands since they last had the honor to address the Society.

During the past year a horse and a mare have been imported; several Merinos have been introduced from Australia, and some excellent pigs have been brought from various places, but the owners of the large herds of cattle seem to be content to go on in the old South American semi-barbarous fashion, breeding in and in and continuing steadily to deteriorate the breed of cattle here.

The large quantity of fresh meat, principally beef, consumed yearly by the whaling fleet, and by vessels touching here for supplies, is not included in any of the lists of exports, and yet it forms virtually a very large item of exported produce. As it is all paid for in cash too,

one would imagine that the graziers might find it worth their while to endeavor to produce a superior article; but numbers, not quality, seem to be the sole object of their wishes.

The committee beg to remind the graziers that the improved breeds of cattle are as fit for the market at three years old as the unimproved breeds at five and six, making a difference of two years at least to the breeder.

The milking qualities of the cattle here are of the lowest order, dairy cows not averaging over one pound of butter a week, and yielding even that small quantity during a very short period. The Ayrshire cattle are celebrated in England, in the United States and in Australia for the very large quantities of milk and butter which they yield, and they do not require the very luxuriant pastures and high feeding, which are indispensable to the short horns. The oxen of this breed are not so large as the Durhams, but will get fat and thrive in pastures inferior to those required by the Durham. From their thriftiness this breed is as well adapted for the small farmer, who endeavors to keep a few milch cows, as to the large grazier who wishes to grow beef; and the committee on neat cattle respectfully suggest to the President and to the Society, whether it would not be advisable to offer a premium for the introduction of an Ayrshire Bull and cow to these Islands. Many of our pastures are capable of amelioration, and as we have an abundant stock of cows to start from, a little care and the introduction of a foreign Bull now and then, would in a few years completely change the character of our herds; and how encouraging it is to know that no change can be for the worse.

The committee on neat cattle consider that they are not travelling out of their province, in saying a few words on the subject of horses, because the amount of available pasturage on the Islands is a matter which they are bound to take into consideration, when making their report on cattle. They would call the attention of the Society to the vast number of useless horses, which are increasing every day and consuming, in the most unprofitable manner, the food which might be better employed. Beef and hides, mutton and wool add to the wealth of the country, but the great majority of horses are not used to till

the ground, to carry burdens, or to drive cattle. They consume a vast amount of food which might be more profitably employed, they deteriorate the grazing lands, and are a main cause of the habits of laziness and vagrancy unfortunately so prevalent among the natives.

The committee on cattle would therefore (with reference to the subject on which they have been called on to report) suggest to the society whether it would not be desirable to endeavor to procure some legal enactment to reduce or keep within bounds the number of *useless* horses. The Stallion Bill passed by the Legislature of 1852 is a piece of law-making beneath contempt, as its sole object seems to be to give the Minister of the Interior the power of appointing Inspectors whose business it is to impose a tax on *such horses as they approve of*, while they have no power to impose a penalty on the parties who keep *bad* stallions, nor to order the castration of the animals. In conclusion, the committee would suggest to the graziers that every one of them should attempt, no matter on how small a scale at first, to improve our pastures by the introduction of clover and lucerne.

R. MOFFIT.

REPORT OF THE COMMITTEE ON CAPITAL AND BANKING.

At the last annual meeting of the Royal Hawaiian Agricultural Society, Messrs. E. H. Allen, S. N. Castle, R. C. Wyllie, G. P. Judd and B. F. Snow were, with myself, appointed a committee on capital and banking. Either of these gentlemen, if he would devote his attention to the subject, would, no doubt, make a report of more practical value than any that I can offer; but as my name is placed first on the committee, I suppose they consider the duty as properly devolving on me. I have, therefore, committed to paper some of the views I have taken of the matter, not offering them as the opinions of the committee, for I am doubtful whether all the committee will agree with me in every respect, and the more doubtful, as I have heretofore held somewhat different opinions myself. Perhaps some of them may commit their views to writing or express them verbally.

The report on the subject made by Mr. Wyllie, the King's Minister of Foreign Relations, at the last annual meeting of the Society, sets forth very clearly, many of the advantages of banking. As a place of deposit and safe keeping of money, a bank is a great convenience to all men who have any money to keep, and saves much labor, expense and care in the payment and transfer of large sums from one merchant or business man to another. A bank check can be written in a moment for any sum and the amount transferred without counting any money. But a bank is of great use to the poor as well as the rich, as a place of deposit and safe keeping of small sums, and the more so if it allow interest on deposits, as many of the banks of Europe do, and especially those banks which issue no bills. The deposits of all banks in good credit usually amount to a considerable sum, and though some persons are withdrawing continually, others are depositing for safe keeping or for the interest, if any is allowed. In the course of time the banker finds the amount of his deposits to remain tolerably uniform. They are of the same value to him as so much bank capital. A deposit of $10 each by a thousand different individuals is better, in some respects, than a deposit of $10,000 by one man, because the one may withdraw his $10,000 all at once and at any moment, but the thousand different depositors will not do so.

If a bank with a capital of $500,000 was established in Honolulu, as proposed by Mr. Wyllie last year, and managed by men in whom the public have entire confidence—a bank in which all the merchants and planters should keep their money—it would no doubt receive many deposits from mechanics, laborers, seamen and all sorts of people; and these deposits would be greatly increased if the bank should pay five or six per cent. interest, which it could well afford to do while lending at 10 or 12. It would thus answer the purpose of a Bank of Savings, and be beneficial to the poor and those in moderate circumstances, while it would aid the planter and stimulate the productive energies of the Kingdom.

An assurance of a permanent dividend of 10 or 12 per cent. would bring plenty of capital from Europe, where millions are loaned at 3 per cent. or even less. Hundreds of millions of British capital have been invested in various stocks in the United States—the highest

being 7 per cent. interest. I observe in the January number of "Hunt's Merchants Magazine," a statement of the dividends by the Philadelphia banks in November last. Those dividends vary from 4 to 7 per cent. semi-annually. The stock of the Philadelphia Bank which pays 6 per cent. semi-annually, or 12 per cent. per annum, which is the lowest rate of interest here, is worth $148 for $100, the par value, or nearly 50 per cent. in advance. All we need then to procure the capital, is that we should satisfy capitalists that their money would be safe here. They are said to be proverbially timid, and well they may be, for there have been "South Sea Bubbles" aforetime, and the remembrance of them has been kept up by Spanish and Mexican loans, and by suspended dividends and Mississippi repudiation in the United States.

In Mr. Wyllie's report on Mexican finances, made Dec. 16, 1843, as agent of the English bondholders, he says it is estimated that the yearly accumulation of wealth or cash seeking investments annually, in Great Britain, averages twenty millions of pounds sterling, equal here or in the United States to $100,000,000. The 200th part of this is as much as we need, perhaps, at present; and who can doubt that with ordinary prudence in the management it would pay 12 per cent. It would often make more than this on a single bill of exchange. But it is not alone requisite that the finances of the bank be well managed; it must be located under a government capable of maintaining its sovereignty and protecting it against all lawless aggression or piratical violence. No one would take stock in a bank to be located on the Fejee Islands, though it promised to divide 20 per cent. It must be in a civilized community, where law and order prevail, and where there is a strength of police or military force to protect not only banks but all other property from spoliation by excited mobs, or by buccaneers roving the broad ocean. Two hundred years ago the Spanish coasts of the Pacific were ravaged, churches robbed, cities sacked and wantonly burned, not only by Filibusters, natives of all nations, but even by commanders holding commissions from the English Government, and this too, sometimes, when Spain and England had been many months at peace. But such times, we trust, now are passed, wherever christian civilization extends; and though it is to

be regretted that private property on the ocean is still captured by an enemy's cruisers, private property on land is generally respected in war, and banks are regarded like other private property.

A bank here can, therefore, have nothing to fear even in war from any civilized power, and should any other power ever become formidable enough to threaten the supremacy of the King's Government, the naval forces of the great maritime nations would readily be brought to his aid in a common cause, against pirates and freebooters.

It is the practice of many English and Scotch bankers not only to receive deposits and transfer credits, but also to collect bills, notes of hand, drafts, orders, &c., for merchants on each other. This is a saving of labor in a large city, and besides it seems to insure promptness and punctuality in payments, as the remissness of any debtor is directly reported in bank, and his credit thereby impaired.

A bank in good credit here would not only be the place of deposit for most of the money, but would be the medium through which all large and many small payments would be made. The counting and carrying of large sums would be obviated.

Referring to the committee of last year, Mr. Wyllie then said:—"All these gentlemen being from the U. S. are better qualified than I am to show you how banking has promoted agriculture generally, but more particularly in its two great staples, cotton and tobacco.—They can show you also the great evils arising from banking when it departs from those true and correct principles by which it ought to be regulated, and which since 1836 have been there more generally and severely felt than perhaps in any other country."

Looking back at the history of banking in the U. S., I am led irresistibly to the conclusion, that banks have not on the whole promoted the agriculture of the country, and have operated most injuriously upon its manufactures. They may seem to have stimulated the production of cotton and tobacco, but they have operated powerfully to prevent the exportation of breadstuffs and other agricultural produce, by diluting or expanding the currency and raising the practical measure of values above what it is in the countries where these productions could otherwise be sold. A dollar is a dollar nominally

every where; but an American merchant cannot pay a dollar a bushel for wheat in American bank paper, and sell this wheat at a profit in Rangoon, where eight bushels of clear rice can be had for a silver dollar, or could in 1839, when Howard Malcolm was there. Nor is a dollar in Owl Creek paper, Michigan "Red Dog," or the Arkansas Real Estate Bank, the same as a silver dollar in Guatimala, where the *mozos* or *pions* can be had for a rial a day, they feeding and lodging themselves.

The effect of bank paper is the same on manufactures, counteracting the design of protecting tarriffs by increasing the current money cost of production. The tariffs of France, Russia and the German Zoll Verein are a sufficient protection against the great skill and cheap capital of England, because labor is even cheaper on the continent than in England, and the currency as sound. But it is very different in the United States, with vast tracts of land, independent labor and a bloated paper currency.

The evils of banking in the United States referred to by Mr. Wyllie, have certainly been very apparent and very severe, both before and since 1836. In 1837 there was a general suspension of specie payment. The next year most of the banks resumed payment, but some of them never did. The notes of such of course became uncurrent, and a great number failed in the course of several successive years, as well as some which did attempt to resume specie payments. In January, 1841, the Secretary of the Treasury reported on the state of the banks and published a list of those which had failed, but I have not been able to find the report among any papers in my possession.

I find however, in the U. S. Almanac for 1843, copied from the Exchange and Trade Register of Philadelphia, a review of the "Financial Revulsion" of 1837–42, giving a list of failures which had occurred since the report of the Secretary of the Treasury, in 1841, i. e. for two years. By this it appears that one hundred and sixty-one banks had failed, having a capital of $132,362,339, a circulation of $43,320,554 and specie $10,288,571; but of this specie the greater part was in a few large banks; the United States Bank of Pennsylvania and its branches, having near two millions and a half, and the Southern and Western State banks having the most of the remainder.

The Exchange and Trade Register published the following table of the capital circulation and specie of the banks of the United States, from 1834 to 1842.

	Capital.	Circulation.	Specie.
January, 1, 1834,	$200,005,944	$ 94,839,570	
" 1835,	231,250,337	103,692,495	$43,937,625
" 1836,	251,875,292	140,301,038	40,019,594
" 1837,	290 772,001	149,185,890	37,915,360
" 1838,	317,636,778	116,138,910	35,184,112
" 1839,	327,132.512	135,170,995	45,133,673
" 1840,	358,462,692	106,968,572	33,105,155
" 1841,	335,469,514	115,905,342	37,131,552
" 1842,	203,107,125	63,874,790	26,842,951

I may here remark that implicit confidence cannot be placed in the official returns of specie in bank vaults. About the time of making returns or submitting to examinations, some additional specie is obtained which remains perhaps only a few days. Hundreds of new banks have been established by borrowing a quantity of specie for a single day, and then returning it to be used in like manner in getting up other new banks. It is difficult to make laws in this matter which artful men will not continue to evade. The specie in these vaults brings them no interest; but the paper money they lend brings them compound interest; and they throw out as much as they dare to risk.

It will be seen that in 1840 the bank capital of the United States was over 358 milllions, while the specie in the vaults of all the banks was reported at 33 millions; near eleven dollars in paper to one dollar in specie.

What did this "bank capital" consist of? It was paper—it was *promises* to pay money on demand, on one part, issued in exchange for the *promises* to pay money in sixty or ninety days on the other part. There was not 358 millions of gold and silver or real money in the whole country—perhaps not a fifth part of it. Houses and lands, ships and factories, horses and cattle, had a real though a very uncertain value in dollars and cents; but this bank capital was a fiction. It might have been made a thousand millions by the same process, and affected nominal prices accordingly, while the absolute value of property would have remained the same. Such a currency is no standard of value. Measured by it a farm may be valued at $10,000 to-day, and to-morrow after a bank crash or panic, not bring $1,000 in cash.

On the same authority (the Trade Register) the whole amount of

specie in the United States in 1820 is estimated at twenty millions; in 1842 at sixty-four millions.

The Register thus shows up the loss by the revulsion from 1837 to 1842.

Bank circulation and deposits,	$ 54,000,000
Bank capital failed and depreciated,	246,000,000
State stock depreciated, - -	- 100,000,000
Company stock " - - -	- 80,000,000
Real estate depreciated, - -	- 300,000,000
Total,	$782,000,000

This does not show that the real wealth of the country had been diminished near eight hundred millions of dollars, but that the bubble of an unsubstantial paper currency had been blown up to bursting, and that thousands and hundreds of thousands had been ruined by it. No such expansions or contractions and no such losses could possibly have occurred with a currency of gold and silver.

Any great revulsion in Europe is always found to affect the United States, but it affects Siam or Burmah very little because they are not in debt to Europe and have no paper money. The exportation of ten millions of dollars from the United States whether to pay the balances of trade or otherwise, is not merely an abstraction of ten millions from the currency, but it takes away the bases on which twenty and sometimes forty millions of paper money have been issued, and which must be withdrawn from circulation to make the banks as safe as they were before. This contraction ruins debtors, throws multitudes out of employment, and greatly affects the value of property. Gold and silver have a positive value, like iron and lead. The law makes them the standard measures of the value of all other things, and stamps them as such because nothing is so convenient for this purpose; but without the stamp their value remains the same. Nothing else has been found more uniform in quantity from year to year; whereas paper can be issued by cart loads. Elasticity or expansion are no more desirable in dollars than in bushel measures. An India rubber yard stick would not be tolerated, but a paper standard of value is far more uncertain.

Before the American Revolution several of the colonies issued paper money which greatly depreciated, and the American Revolution itself was carried through, in a measure, by issues of paper,

which, though constantly depreciating, still passed freely until two hundred dollars of it were only equal to a dollar in silver. On the 31st May, 1781, the continental bills ceased to circulate as money, but were bought up on speculation at various prices, from $400 to $1, up to $1000 for $1. The whole emissions from 1776 to 1781 amounted to over 359 millions of dollars. It had long passed from hand to hand at such enormous discount, that all thought was given up of redeeming it at par, nor could there be any just mode of scaling it. It was circulated chiefly among the Whigs of the Revolution and was left on their hands. It served to achieve the independence of the country, and they were satisfied, but it was perhaps not the easiest mode, and certainly not the most equitable. It was never redeemed at any rate except what was provided under the act of 1780, at forty dollars for one, and some in 1791, at $100 for one.—The Revolutionary debt for borrowed money, was paid in full.

With the past experience of the separate colonies in issuing paper money, and of the Continental Congress during the war, it is not surprising that in the formation of a Constitution the National Convention took from the States the power of issuing "bills of credit" as well as of laying duties on imports. Both had been exercised by the separate colonies greatly to the public detriment. The former prohibiton was intended to give the general government the power of regulating the currency; the latter to make the imports uniform in all the States, and this last has been fully carried out; but the prohibition that the States shall not coin money or emit "bills of credit" has been rendered practically nugatory by construing it so as not to apply to *banks* or corporations chartered by States. These are allowed to issue "bills of credit" to a most mischievous extent.—What control can Congress have over the currency while 800 or 1000 State banks are perpetually pushing their notes into circulation with a sole view to their own profits? A well regulated National Bank, like the Bank of Hamburg, the Bank of the Netherlands, or the Bank of France, with no power to issue bills greatly exceeding its specie and bullion, and with no local banks to operate on, or contend with, would not be liable to grant expansions and contractions. Such rarely occur in France where the currency has remained compara-

tively uniform amidst all the terrible political revolutions which have distracted that country. The Bank of France was chartered in 1803, for forty years, with the exclusive privilege of issuing paper money, but it issues no bills for less than 500 francs. Consequently all small dealings are in gold and silver.

In the renewal of the charter I presume there were some modifications, for three new banks have been created authorized to issue post notes at a low interest on time and with sundry privileges, but not to issue paper for general circulation as a currency among the people. The currency in common use is gold, silver and copper.

The Bank of Amsterdam, chartered in 1659, was a deposit bank, and making it a rule to keep specie equal to its paper in circulation, it did a safe business 150 years, when it was ruined by the discovery made by the French when they entered Holland, that the bank had privately loaned large sums to the Dutch Government.

The Bank of Venice, the oldest in Europe, was chartered in the year 1171, and continued in successful operation till 1797, when the Republic was finally subverted. It received deposits of bullion and coin, and issued so few bills that they usually commanded a premium over other current money.

The Bank of England has a great number of local banks to compete with. The effect is, in a more limited extent, the same as the United States. It has several times suspended specie payments by consent of Parliament. One of these suspensions was continued from 1787 to 1821. In 1814, 1815 and 1816 no less than 240 country banks in England stopped payment, and 89 passed under commissions of bankruptcy.

A few of the new States of the American Union have set out with the determination to have no banks, and some by suppressing notes of small denominations; but they have always found the bills of other States, small and large, poured in upon them, giving to banks and bankers out of the State the profits of the circulation; and in the end have nearly all yielded to the demands of their own people to have banks of their own. Some of these States have recently gone further and passed free banking laws. From these I apprehend much mischief. These free banks are required to pledge stocks of the general or State government as security. This is their only real capital. Of

course the owners get the interest on the stocks, and then again get interest on their bank loans, besides borrowing freely of the bank themselves when they can make good speculations. The double interest and other facilities will multiply such banks as long as stocks can be obtained, and thus the *debts* of the States and of the general government will become the most available banking capital. In like manner bank stock has in some States been pledged as the capital of Insurance Companies, and dividends drawn from both: a business which goes on smoothly in fair weather, but which having little more than a paper basis may all be swept away by the first monetary tempest. The storm or the conflagration may carry banks and insurance companies together into the yawning gulf of bankruptcy.

Returns published in London exhibit the condition of these principal banks in Europe on the 1st January last.

Bank of England.—Circulation,		£21,871,581
	Coin and Bullion,	19,765,621
Bank of France.—Circulation,		£27,441,563
	Coin and Bullion,	19,297,230
Bank of Vienna.—Circulation,		£19,494,325
	Coin and Bullion,	4,321,736

The deposits and other liabilities are not given here nor their debts due, as my object is to show how their specie compares with their paper in circulation. The Bank of Copenhagen is the only bank in Denmark, and the Bank of Hamburg one of the best in Europe, but I have not the returns of these.

The great bank explosion of 1837, was not the first which occurred since the adoption of the Constitution, in 1789. In 1814, in the interval between the old U. S. Bank in 1811 and the new one in 1817, all the banks south and west of New England suspended specie payments, and did not resume them until February, 18[illegible], at which time by order of Congress, none but the notes of specie paying banks were received in payments of public dues. During this time silver nearly disappeared except in New England. The suspended banks increased their issues, and paper bills of all denominations were issued by corporations, traders, tavern keepers and all sorts of people, from $5 down to three cents, much of which was current only in the neighborhood where it was issued, and was worn out in the pockets of those who received it only because they could get change in nothing else. Not much of the specie went out of the country at that time,

because the war interrupted the foreign trade. European goods were but little imported, so that foreign debts were not incurred. The specie went to New England, or was hoarded and sold at a premium for particular uses. In the absence of foreign goods domestic manufactures were commenced and greatly increased; but after the peace in 1815, the foreign goods came in like a deluge, and notwithstanding the Tariff of 1816, which was designed to pay the war debt and protect the domestic manufactures, the heavy imports filled the public treasury, while at the same time they exhausted the country of its specie and prostrated the American manufactures. The excessive issues of bank paper both by the national bank and the swarm of local banks so altered the standard of values and raised the prices of every thing in the United States that foreign goods could be sold at a great profit; the American manufactures failed; the foreigner had possession of the market, and the country became exhausted of its specie, for the foreign merchant did not take the bank paper which had so diluted or expanded the currency and enabled him to override the Tariff of 1816; he took the specie on which the paper currency professed to be based, and left the paper without any stable foundation. Hence some banks failed and others contracted their issues to avoid a like catastrophe. The country was in a condition of great embarrassment. The new U. S. Bank went into operation with a nominal capital of $35,000,000 but only $1,200,000 in specie. It was found necessary to send an agent to England to buy specie. The bank borrowed about eleven millions in Europe and the West Indies at a cost of half a million in premiums, but while it was coming in at this great cost, not less than twelve millions were going out from Boston and other ports to pay the balances of trade. In 1820 the whole amount of specie in the country was estimated at twenty millions, while the paper currency was nearly ten times that amount.

In the debate in Congress on the bill to charter another U. S Bank in 1816, Mr. Calhoun estimated the "bank notes, credits and bank paper in one shape or another" at two hundred millions. These paper expansions operated then as they did again in 1834-'35-'36-'37, to fill the public treasury by heavy importations of foreign goods at the sacrifice of the domestic industry of the country, the exhaustion of its species and the consequent bursting of the paper bubble as

already described in 1837-'42. With a specie currency, a very moderate rate of duties on foreign imports would be a sufficient protection to American agriculture and manufactures, but with great bank paper expansions, duties of 50 per cent. are on many things inadequate to overcome the difference between the cost of production in the United States and the cost in Europe with expenses of importation added. The difference is not only a serious obstacle to the American manufacturer, but it is equally effectual in preventing the American farmer from sending his products to the countries from whence the manufactures come. It was supposed that after the repeal of the British corn laws the wheat, flour, corn and provisions of the United States would go to England to supply her deficiency. But such does not prove to be the fact. The cotton and tobacco of the United States go to Europe because they cannot be had in sufficient quantity and equal quality elsewhere, but the breadstuffs needed by the crowded population of England are obtained not from the United States but from Russia, Prussia, Poland, Hungary and elsewhere in the north of Europe, where the cost of production is less than in the United States.

A paper currency on these islands would have the same effect in checking the production of sugar for exportation, for although it takes money to establish a sugar plantation, a cotton mill or an iron foundry, if money be so plenty, whether in coin or paper, as to raise the prices of labor, real estate and other property to a high figure, the cost of production will be so high that the product cannot be sold in other countries at a profit. The great redundancy of coin must have the same effect upon prices as a redundancy of paper, but is not liable to the same losses and the same sudden contractions and expansions under which vast amounts of property are sometimes sacrificed at forced sales, and thousands of business men are ruined.

Great Britain is the richest country in the world. For nearly a century the amount of the exports of her industrial products have regularly exceeded her imports. The balance is due her in specie, and if this were all thrown into circulation on the little islands where it is earned it would probably raise prices at home so that she could no longer sell her manufactures abroad as she does now, and the sources of her constantly increasing wealth would be cut off. But her money is not so thrown into circulation at home. It is expended

by her fleets and armies in all parts of the world; it is expended in her colonies; has heretofore been paid in subsidies to foreign allies in war, and is now lent to foreign governments, states, cities, corporations &c., wherever it will bring interest in any part of the world. Some of it is thus lost by bad debtors, but on the whole it brings in many millions of interest money, which still further increases the wealth of the nation, to be again invested in like manner. A little of it could be used to advantage in the Sandwich Islands by means of a bank; but it will be readily inferred by this time that I concur entirely in the conclusion of the report made by Mr. Wyllie last year that this bank should not have the power of issuing notes as a currency payable on demand without interest. It would have ample sources of profit, through interest on its cash, without receiving interest on its *credit;* be far safer for the public; have a better effect on the productive industry of the Islands, and be much more likely to obtain the confidence of the real capitalist, while it would repel the mere speculator in stocks. He who obtained loans from it would not need to carry off a mule load of specie, but would obtain a credit at the bank on which he might draw his checks.

With the golden sands of California on one side, and the auriferous treasures of Australia on the other, there can no longer be any need of paper here, nor any where, unless in very limited quantities and large denominations as a currency in common use; as there are now no banks of issue on the Pacific coast of America from Cape Horn to Sitka, it seems well to set up none here. It will be easier to keep paper banks out than to get rid of them when once they have obtained foothold, for they cannot be closed suddenly without ruining all debtors and causing a great convulsion in the monetary affairs of a country where they have a large paper circulation.

The work of substituting gold for paper must be done gradually, but it ought not to be long protracted in the United States, while more than fifty millions of gold a year are received from the diggings of California. Much more than this is dug from the earth in California, but a large portion of it goes direct to England, France, Germany, Mexico, Chili and China.

The annual products of the gold mines of California, Australia and the Ural Mountains in Siberia seem likely to be for some time not less than one hundred and fifty millions of dollars a year, and may be

more. I find it stated in "Hunt's Merchant's Magazine," for January, that the ascertained yield of the Melbourn mines to the 31st July last amounted to 53 tons weight, or in exact federal value to $25,312,800; at the Sydney mines to $12,500,000, and at Adelaide $5,000,000—total $42,812,000.

The amount of bank paper in circulation in all Europe has been estimated at £189,214,278 sterling, or $946,071,390; that of the United States is supposed now to be $170,000,000, and daily increasing. This last might be supplanted by gold in three or four years; but it is much more probable that what gold does not go to Europe to pay for imports and to pay the interest on American stocks held abroad, will be made the basis of further issues of bank paper, swelling the amount up to 200,000,000 or more, and ending sooner or later in another explosion like that of 1837.

The same Magazine from which I have quoted contains the following table:

BANK CAPITAL, CIRCULATION &c. IN THE UNITED STATES.

Year,	Capital,	Loans and Discount,	Specie,	Circulation,
1842	$260,171,179	$223,957,000	$28,440,000	$83,734,000
1843	228,861,000	254,544,000	33,615,000	58,563,000
1844	210,872,000	264,905,000	49,898,000	75,167,000
1845	206,045,000	288,617,000	44,311,000	89,608,000
1846	196,894,000	312,114,000	42,032,000	105,552,000
1847	203,070,000	310,282,000	35,122,000	105,519,000
1848	204,837,000	344,476,000	46,369,000	128,506,000
1849	207,309,000	332,323,000	43,619,000	114,743,000
1850	217,317,000	364,204,000	45,379,000	131,866,000
1851	229,084,000	412,710,000	51,907,000	153,968,000

By the annual statement of the Secretary of the Treasury made up to January 1851, it appears there were 737 banks and 128 branches, of which returns had been received at the Treasury Department. The returns of capital &c. are given above, besides which it appears they owned of stocks $23,306,847, of real estate $18,860,395, of other investments $12,398,898, and that they were answerable for deposits to the amount of $129,076,082. Add their deposits to their notes in circulation and they owe the public $283,034,470, to pay which they have near 60 millions in specie, and the debts due from borrowers to the amount of $412,719,315, besides stocks, real estate &c. There are ample funds as long as bank paper is current, but should it cease to be so the banks could neither collect their debts nor pay out their deposits; all the specie in the United States, and there is more now than there ever was before, would be insufficient to redeem the circulation and pay the deposits of the banks.

"Hunt's Merchant's Magazine" estimates that $100,000,000 have been added to the specie of the country within the last three years. This strikes me as an over-estimate. The total amount of gold coined at all the U. States Mints for 1851 was $59,588,653. I find by the "National Intelligencer," since received, that in 1852 the total coinage of gold was $56,846,187; silver $999,410; copper $50,630; but the coinage of 1850 was only $31,981,733 in gold, and 1,866,100 in silver. In 1849 it was $12,243,175 in gold, and 2,366,288 in silver. From 1793 to 1849 the whole amount of coinage at the U. S. Mint was 162,182,409—averaging less than three millions a year. The recent great increase is of California gold, and a large part of this appears to be going to Europe as fast as it is coined. The following table will show how this is done, being the imports and exports for the last three years, ending June 30, 1852:

IMPORTS INTO THE UNITED STATES.

	1849-50	1850-51	1851-52
Foreign Merchandise,	$173,509,521	$210,771,429	$207,240,101
Foreign Specie and Bullion,	4,628,792	5,453,503	5,262,643
Total Imports,	$178,138,313	216,224,932	212,502,744

EXPORTS FROM THE UNITED STATES TO FOREIGN PORTS.

Domestic Produce,	$134,900,233	$178,620,138	$149,861,911
Specie and Bullion,	7,523,804	29,465,752	42,507,285
Foreign Merchandise,	9,475,483	10,302,121	17,204,026
Total Exports,	$151,898,720	218,388,011	209,573,222

From the above it appears that the exports of Specie and Bullion from the United States in three years have been		$79,496,041
The Imports,		15,344,938
Balance Specie Exported,		$64,151,103
In the same three years, the coinage at the mints has been,	$151,832,842	
Deduct Specie and Bullion Exported,	64,151,103	
	$87,681,739	

The addition of *specie* in three years is not one hundred millions as stated in the Magazine, but 87 millions. This however, is a vastly greater increase than ever occured before. There however, besides this may have been an addition of gold dust and bullion uncoined of of several millions more; but on the other hand the exports of American specie would have been greater than they have been, had not American stocks been sold in Europe in the same time, the amount of which for the single year 1852, has been estimated as high as thirty millions. This is only another form of incurring debt. The debts incurred by the state authorities alone amount to about two hundred millions, not all held abroad; but besides this there are stocks of

American railroads, cities, corporations, &c., &c., held in Europe to a large amount, probably far exceeding all the specie in the United States. The interest on these stocks added to the balance of trade, if the imports and exports go on as they have done for the last three years, will carry to Europe three-fourths of all the gold derived from California. And if the States go on multiplying banks as they now appear to be doing, the revulsions of 1836 to 1842, of 1809-'10 and 1814 to 1824, may occur sooner than is expected, notwithstanding all the restless activity, the indomitable energy and vast resources of the American people, who need only a sound unfluctuating and solid currency, and a system of imports wisely adapted to protect domestic industry while it secures the necessary revenue, to be the most prosperous nation in the world, scarcely affected at all by the revulsions, fluctuations or panics beyond the Atlantic Ocean.

I hope I may be excused for dwelling at such length on the banking and financial affairs of the United States. The commercial connection between them and these Hawaiian Islands has long been intimate and must continue to be so. Your legislators should be prepared to adopt what is useful and show whatever is mischievous in the example of the United States as well as of other countries. That banks are useful and convenient there can be no doubt, but these advantages are far more than over-balanced when they are allowed to put their own notes without interest into circulation and become the current money of the country on which they receive interest. Those banks which are in dishonest and imprudent hands always issue the most paper, and the others put out as much as they dare. The more they issue the higher the prices of lands, labor and merchandize rise; importations of foreign products increase, and these carry off the specie while the paper only remains in circulation. Merchants, to get gold and silver to pay their foreign debts, draw hard on the banks; these in alarm suspend their discounts and call in their debts; their debtors cannot pay, and if the banks weather the storm at all, it is only by inflicting great distress on the community. The property of thousands is sold at half its value; debtors, to keep their heads above water, pay two or three per cent. a month for money, and only sink the deeper, until grown desperate they become reckless of their obligations. If the banks generally and by concert, suspend specie pay-

ment to save their debtors or themselves, then notes pass at a discount and prices of goods are made to correspond. If one travels with these notes in his pocket he will have to go to a broker every 50 or 100 miles and pay five or ten per cent. for other bills, or a still greater per cent. for specie, and will find many left on his hands that are utterly worthless. The resumption of specie payments cannot be made without a severe contraction of the paper currency, which has a ruinous effect upon all who owe money. Prices of all kinds of property, inflated by the false or paper standard of value, fall down again even below the true hard money standard.

In 1814, the State of Pennsylvania chartered over forty new banks, and put nearly all of them in operation with very little gold or silver. Before the year was out they all suspended payment as did all the banks out of New England in the course of twelve months following; but these banks continue to issue their paper in vast sums. When the effort was made to resume specie payment in 1817, it caused distress and utter prostration of business, more severe, protracted and ruinous perhaps, than the subsequent revulsion of 1837, because the latter was relieved by a bankrupt law and importations checked somewhat by the Tariff of 1842, which relieved American manufactures, and thus checked the demand for specie for exportation.

To show the effect of these revulsions of the paper currency upon prices we quote from the report of the Committee of the Senate of Pennsylvania a statement of the prices of lands at different towns.—The same farm in the rich old county of Lancaster, which in 1809 were sold at 75 to $100 per acre, rose in 1814, under the bank expansion, to $250 and $300 an acre; and in 1819, under the resumption of specie payments, fell again to $50 and $70 an acre. The fluctuation was as great in other counties. Kentucky and other States passed laws to suspend the collection of debts. Great state banks and real estate banks were created, whose notes were made a legal tender, and universal embarrassment prevailed. American Statesmen ought to learn wisdom from the history of those times, and arrest a system whose constant tendency is to run into great excess, perpetually vaccilating and destroying all uniformity in the standard of values.

A very limited issue of paper by a bank on these islands would be very convenient, but it is not necessary, and I deem it to be altogether safest to allow of no issue of paper money.

Happily the matter is now fully within the control of the government of these islands. It is not so under the government of the U. S. There an uncontrolled multitude of chartered banks, and banks acting under authority of free banking laws of the several States, are all busy in putting paper money of all denominations into circulation. In no other country does such a state of things exist. The best mode of correcting the evil is a debatable matter; whether by commencing with the suppression of small notes, or otherwise it is not necessary to enquire here. No reform can be effected without great and persevering effort. Powerful interests must be encountered. But no such difficulties stand in the way here. You have only to profit by our bitter experience by giving the system no foothold on these islands.—Indeed I trust that no paper money will find currency either on the islands of the Pacific, or on the continent this side of the Rocky Mountains.

REPORT OF THE COMMITTEE ON LABOR.

LIHUE PLANTATION, May 31st, 1853.

To Geo. E. Lathrop, M. D., Chairman of Committee on Labor:

MY DEAR SIR:—I have nothing new to communicate on the subject of labor. We continue to like our Coolies; the number is now increased to 41; and though the additional ones are generally men from Honolulu discarded as bad characters by those from whom we obtained them, yet they have given satisfaction as laborers, and with but one exception, have given no serious trouble. One of them, a Coolie employed for A. B. Bates, Esq., and for some time in his service, in a fit of rage against some of his companions set fire to the house in which they were sleeping, which was burnt to the ground.—He was tried in Honolulu and sentenced to 2 years imprisonment, being convicted of arson by a jury.

As laborers in the field, the Coolies give us perfect satisfaction.—They are industrious, skillful and thorough, and one Coolie in a cane field is worth in my opinion three natives. But among themselves, they are quarrelsome and passionate and have many dangerous fights. One of our number is now laid up by a deep stab through the fleshy part of his thigh, which an inch nearer would have severed the main artery and been fatal. The wound was inflicted by a butcher knife lashed to a pole, their favorite weapon in the many playful squabbles in which they so often indulge.

At Koloa, the sugar boiler, a foreigner, was severely injured by a blow on the head inflicted by one of the Coolies in a passion, at some distasteful order given him. The punishments in China are so barbarous and severe for even light offenses, that the Coolies here seem to think that the legal penalties which the island laws inflict, are mere trifles.

I hope that a sufficient number of persons may be found at the annual meeting, who are desirous of obtaining more Coolies, to warrant the fitting out of a vessel for the purpose.

The want of labor is still the greatest obstacle with which large plantations have to contend, and I believe no better method than the above to obtain laborers can be devised.

Yours truly,

J. F. B. MARSHALL.

REPORT OF THE COMMITTEE ON BUTTER AND CHEESE.

As the Chairman of your committee is absent and I have not time for an extended report, I shall confine my remarks mainly to things of a practical character, in regard to dairies at the Hawaiian Islands.

1st. Cows.—The breed of the cow is of great importance in butter making, as both the quantity and quality of milk of a good cow are very superior to those of a poor breed. But the habits of the cow are no less important than her breed. Take the best breed of cows ever known and turn them out on these plains unguarded, un-

heeded and unmilked, and in ten years their progeny will be wild, if not ferocious, and their desirableness for dairy cows will be at an end, until by taming and training, their progeny are again domesticated.

Many of the cows on the island of Oahu are of a very superior stock for the dairy. Let their feed be good and abundant and their habits cultivated, and we may have as much milk and of as good quality here as any where.

But in order that a cow of a good stock may fully develope her qualities, she must be at home, and in a happy condition, having a plenty of good food and good water, near at hand, must be devoid of fear from dogs and hogs, and savage men; and, when brought to the yard to be milked, she must feel fully assured and yield her milk with pleasure to the gentle hand of her milker. That this may be the case, requires a process of domesticating and training, from the time the calf is born until it becomes the cow to be milked.

But how unlike to this is the fact in relation to most of the cows now milked in the Hawaiian Islands. If the mother was ever milked, the calf commences being trained by being half starved and daily pelted on the nose with a club or stones, to her injury and to the great annoyance of the mother. The calf is then turned out to run wild two years, more or less, until she brings forth her first progeny; when perhaps she is brought up to be milked. But, very likely, she hides her calf two or three days and during this time the young cow is left unmilked—because the milker says he can get no milk without the calf. At length the calf is found, the young cow is then lassoed and brought up to a post and tied by the head, and her feet are tied fast together. Now the attempt at milking is commenced. The cow is tickled or pained, or affrighted, or all together. Then commences storming, scolding, kicking, thrashing and perhaps pelting with stones on the part of the savage milker. The cow, on her part kicks and and strains and thrashes about, and falls perhaps half choked, and is left unmilked, the bag being caked; or, if any milk is obtained, the major part of it is left in the bag, because, on account of the fright of the cow, a perfect collapse takes place in all the lacteal vessels.—Fear overcomes all sense of distension or fullness in those parts. The

young cow thus frightened and abused comes up to the post the second time with little less fear than at the first. Nothing but the presence of her calf and the sense of its drawing upon the udder can induce the cow thus vexed and frightened to yield up her milk. But the better part of it, that is the last, is still retained for the calf.

Thrashing, storming, tying head or legs or both, is the discipline that the cow is destined to undergo be her disposition what it may.—No sympathy is secured between the milker or the herdsman and the cow; consequently to obtain all her milk, or the best of it, is impossible. Mend the habits of the herdsman and the milker, and accustom the cow to go contentedly without her calf in an enclosure and you have taken the first and that a very important step in getting a good dairy.

2. The next thing is to give the cow good food and plenty of it, with good water, and salt weekly, in case she has not access to salt water. The cow that has to travel one or two miles to her food can not give as much nor so good milk as the one that finds her feed nearer home, as she has less time for resting and absorbing milk from the food, and the milk thus formed being heated by the journey will be less rich and oily.

3. The locality of the dairy is of material importance in butter making at these islands.

In New England where an even temperature is desirable and the two extremes of heat and cold are to be avoided, a room under ground or over a spring is preferable. But at the Hawaiian Islands a free circulation of air, a good breeze even, passing through the dairy is more important than a few degrees reduction in the temperature. In a common cellar the thermometer varies scarcely a half of a degree from 76° during the 24 hours, while in an airy stone house it varies five or more degrees each side of that point. Let the dairy be well ventilated, and if it be requisite to place it upon a hill to get a fresh breeze, this is more favorable to the rise of cream and to the hardening of the butter than a shady, damp, cool valley, from which the wind is excluded. This will correspond with the experience of all dairymen, that cream never rises so well in a damp close day as when the sky is clear and the air fresh.

4. Neatness is essential to the dairy. Neatness must begin with the milking and exist in every step of the work till the butter is packed away for use. Lack of neatness, in any one of a half a dozen things, may injure if not ruin what would otherwise be good butter.

Good milk will keep in Honoluln, if not disturbed, 24 hours without becoming sour, in case the milk is placed in a cool airy place, where there is no sun. But if the milkers hands are filthy, or if the dish into which he milks is not perfectly cleansed and scalded, or if the strainer or pan lacks cleanliness or sweetness, or if the milk be disturbed in the pan, or if the cow be milked when fatigued or heated, either one or all of these circumstances will cause the milk to sour in less than 24 hours, and will consequently unfit the cream for making good butter.

5. CHURNING, &c.—In the opinion of some the cream should be churned immediately after being removed from the milk. This may be well when the amount of cream is sufficient to make it an object.—But if the cream is kept in an airy cool place and well stirred morning and evening, it may be kept two or three days without injury to the flavor of the butter. The churning should be done early in the morning, if practicable; and the cream being kept in a stone or earthen jar should be reduced to as low a temperature as can be produced in this climate by placing wet towels around the container during the 12 hours previous to churning. If the cream is stirred a little in the evening before churning, and kept as cool as may be over night, the work of churning in the morning will be quickly performed; and the butter-milk will be easily separated from the butter. The work of extracting the butter-milk from the butter is ordinarily performed in New England by the hand, but in this climate, the heat of the hand would melt the butter and defeat the object intended.—This work of seperation must be performed by a wooden stick or some other implement made for the purpose; and should never be attempted except in the coolest part of the day, in this latitude.*

* The butter should be thoroughly worked and packed down the morning after it is churned. Washing the butter is not recommended, as it cannot improve its flavor, if neatly made, nor increase the ability to seperate the milk from the butter if it be kept cool during the 24 hours of the churning.

The container in which butter is to be deposited should be either stone, earthen or white oak. Tin corrodes and nearly all kinds of wood impart an undesirable flavor to the butter. The amount of salt requisite for butter is not less than one pound to 20 of butter, nor over one and a half to that amount of butter, varying somewhat in accordance with the length of time you wish to keep it. A little nitre, say one ounce to twenty pounds will not injure its flavor, but improve its quality for keeping.

Respectfully submitted,

J. S. EMERSON.

REPORT OF THE COMMITTEE ON THE VINE AND FIG.

To Rev. T. E. Taylor, Chairman of Committee on Vines and the Fig:

DEAR SIR:—As Chairman of the Committee on the Vine and the Fig, I presume you will report on the general subject—that you will give the Agricultural Society an account of all the varieties of both which are found in the islands; especially of the new varieties of the vine said to be introduced on the island of Oahu; of the comparative value of the different varieties, for the several uses to which we may put them—also the best modes of cultivating and managing them, so as to make them profitable. All these topics, belonging to the general subject, I will leave to you, and also the adaptation of our soil and climate to one or another variety of the vine and fig, or to all of them. My connection with the committee must be because of my residing on the plain of Lahaina, which has become somewhat famous for its luxuriance in grapes; and so I will confine my remarks to our own place, trusting that they may perhaps be of some use to the public.

The whole plain of Lahaina is formed by soil, which has been washed, during many generations, from our lava mountains. This is the only source of our soil, except that a moderate amount of vegetable mould must have gradually mingled with the lava ingredients; and along the line of the sea beach, it is mingled with the coral lime sand, thrown up from the ocean. Only two streams run from the mountains over this plain, neither of which reaches the ocean except

in the time of rains. Except in the time of flood, they are spent in watering the innumerable kalo patches, which cover the great part of Lahaina.

All kinds of cultivation are carried on by irrigation only; but vines and and trees, which root deep are doubtless watered by streams which run under ground, from the mountains. One such stream comes out near the north end of Lahaina, at the shore, about at high water mark. There must be many others, in different parts, mingling themselves more or less with the soil of the plain. The surface of the ground, most of the year, is too dry for common vegetation, except when irrigated. But, eight or ten inches below the surface, it is always moist, so that it never fails to bear a heavy crop of weeds; and vines or trees never need watering after they have once taken root. Permanent wells of fresh water may be had in any part of the plain, by digging ten or fifteen feet deep.

The only kind of grapes cultivated, hitherto, at Lahaina, are the large purple grape seen in different part of the islands. In fact, they are almost the only kind we have seen at the islands. How valuable this grape is compared with others I am not prepared to say. It is not so sweet and delicate in its flavor as the white Madeira grape.—That it is a valuable kind would appear, from the fact, that it is said to be cultivated extensively, in all parts of Europe and America, where the climate is adapted to its growth.

This vine was probably introduced into Oahu, from the Spanish Main, by Manini, about the year ——. Mr. Richards planted slips of it about his house, at Lahaina, about the year 1827. The same stocks which he planted are still standing, and growing as thrifitly as they ever were. If properly attended to, they still bear as rich and abundant fruit as they did when we first enjoyed it in 1835. Some of these vines are 6 or 8 inches in diameter at the base; they reach over the two story house and over other buildings. Perhaps the extreme length of some of them may be now 100 feet, and if all the branches which have been cut off, in 25 years, could have been measured, it might be found, that a single stock had produced miles, in length, of branches.

In planting vine slips, the first year, they need frequent watering

and much attention, as they are liable to be injured in a variety of ways. After that, if in a good situation, they grow rapidly, and in some cases, would probably yield a crop of grapes in one or two years. Formerly we supposed, that the grape slips should be watered the first year, with mountain water only. But that would not seem to be necessary. A neighbor of ours the last year, planted several slips within 25 or 30 feet of the ocean, and almost on a level with high water. They were watered from a well only 20 feet from the ocean which must be somewhat brackish. The vines as they grew, were trained up the south side of a building, and in five months from the time the slips were planted, they had reached the length of forty feet and more. It is worthy of note also, in this case, that the soil in which these vines were planted, was not merely the common soil of Lahaina, but was mingled with a still larger proportion of the sand of the ocean.

One thing seems established by our observation, and that is, that vines never do well in the vicinity of large shade trees. They will almost disappear from an end of an arbor which happens to be shaded by a kukui tree. Some of our kukui trees have attained a considerable height, and have nearly ruined the vines which are partly shaded by them. Occasionally a vine climbs some tree in its wandering, but it grows very indifferently in that situation, and seldom bears any fruit. Probably our large fig tree will prove still more destructive to the vine. They will not only cut off the power of the sun, but will more than any other tree monopolize not only the nutritive properties of the atmosphere, but of the earth also. So far then as my observation goes, at Lahaina, there is no situation in which vines grow so finely, as where, with a free circulation of air, they have for the whole day, without interruption, the full blaze of our burning sun; and its fruit will never come to perfection in any other situation. Even the leaves of the vine itself are too much shade for its fruit to gain a rich flavor, and a real vine-loving Cape-de-Verdian is often seen cutting them off. In regard, however, to some of our vines, we have two objects in their cultivation. The fruit is the least of the two. A far more important object is the grateful shade they make about a dwelling, and the coolness they add to the dwelling itself, by covering the roof. The shade

they afford is the more valuable, inasmuch as it is most dense, during the hot months of the year, when it is most needed.

On the subject of trimming, it is doubtless known to all, that vines will not flourish, nor can we expect any fruit from them, or any that is good, unless they are thoroughly trimmed every year. The time of trimming, one year, should be governed, in some measure, by the time they were trimmed the year preceding. There are, however, at Lahaina particular reasons, why we should never trim vines earlier than the first of January; and if left later than the first of April, it will prove an injury both to the vine and the fruit. The trimming of our vines operates precisely like the breaking up of winter in higher latitudes. As soon as the vine is thoroughly trimmed the buds begin to swell; the new and tender branches filled with clusters, shoot forth everywhere, and grow with great rapidity. In four months from the time of trimming, we have the first ripe grapes. Where we have several distinct vines, in order to prolong the season of grapes, we are accustomed to trim one the 1st of January; a second, the 1st of February; a third, the 1st of March, and to finish the remainder, the 1st of April. By this means, we may have ripe grapes from the 1st of May to the end of September.

For many years the mission families alone, at Lahaina, raised grapes. But, for a few years past, vines have multiplied, among natives and foreigners, in every part of the place. A few of the white Madeira grape have been planted; but they have not had time to show how well they will thrive. Natives of Lahaina supply the market there with the purple grape, and often carry them to the market at Honolulu. Having thus far given our own experience in the culture of the vine, I should stop, were it not that there is an important question which ought to be answered by somebody. It is one which should be investigated by those who have had more acquaintance with vine growing than I have had. For fear, however, that the subject will not have the attention it deserves I will make a few remarks upon it.

With a soil and climate adapted to the vine, why is it that so few places on these islands enjoy this delicious fruit? Why are other islands in this ocean equally destitute? When I was at Tahiti, in 1835, I was told there was not a grape vine in the Society or Georgian groups of islands. We may see reasons why, in many places, the

vine cannot be cultivated. But are there not many places in this group, where, with a proper mode of culture, the vine would flourish which have not yet been tried? The soil of Lahaina is essentially the soil of all parts of the Hawaiian Islands. It is said that volcanic soils in almost every part of the world, have been found well adapted to the vine. Where it is mingled with sand, as along all our shores, it will no doubt be improved for this purpose, as it is for almost every vegetable and tree that is grown. The vine flourishes under the burning heat of our shores. But that degree of heat may not be essential to it. I have seen the finest grapes and produced too in great abundance, at Kuapehu, on Hawaii, above Kaawaloa. It is a mile and a half inland, and at an elevation of, certainly, not less than 1,500 feet. My impression is, that many of the vine growing regions are of great elevation. The rule for choosing ground for a vineyard, in all parts of the world, whether north or south latitude, is, that it face the noon-day sun. Some degree of warmth is doubtless needed; but perhaps the strong and glaring light is as essential to the vine and its fruit, as is its heat.

If I were asked what made Lahaina well adapted to raising vines, I would say,

1st. It has a deep soil. This is very important, if, according to Virgil's rule, the root must stretch as far towards Tartarus as the top does towards heaven. This would point to our plains and vallies, as the places for grapes. But sometimes a deep soil is found high up the sides of the mountain.

2d. Our soil is always moist a few inches beneath the surface.—This supercedes all necessity for irrigation after the first year. If the earth lacks a natural moisture beneath, it must require a vast amount of irrigation to make the vine flourish.

3d. Another circumstance, of still more importance, is, that from the 1st of April to the last of September, which embraces most of the growing season of the vine, we seldom have at Lahaina, any wind, except the gentle land and sea breezes. Strong winds are the greatest enemies the vine can have. It cannot be made to flourish, on a spot where the trade winds blow constantly and in full strength. This is easily understood, if we consider, that the new branches which shoot out after trimming, are very tender; that, in this climate, they grow

with great rapidity. With us, they often stand up six, eight and ten feet before they show any signs of being woody; and they are easily broken with the wind. We must remember too, that these new branches are the only ones that bear the fruit, and they are the only ones, which in the succeeding year, send forth fruit—bearing branches; so that if many of them are broken, it is not easy to see how the damage can be repaired. These branches will never grow *thrifty*, if they do at all, where they are constantly whipped by the wind. A single hour of strong wind at Lahaina, while the vines are growing, throws them all into mourning. At Waimea, Kauai, where the trades prevail, at times, moderately I should judge, Mr. Whitney succeeded in raising vines, by enclosing them in high adobie walls. The Missionaries of Molokai, in their moderate trades, have done the same, by building, to the windward of the vines, a high barricade, which is thatched with grass after the manner of the native houses.

I know of no other advantage which Lahaina has over most places on the islands in raising grapes, unless it be its perpetual sunshine which has been mentioned. So far, therefore, as our observation goes, we should expect that the grape would flourish, in every part of the islands, where there is sufficient depth of soil, not too dry, well exposed to the sun, and where they are protected from the trade wind, during the milder portion of the year. Some have suggested the idea of planting groves which should be profitable for fuel, perhaps for fruit, and at the same time afford the necessary protection to a vineyard.

On the other branch of our subject, namely, the fig, I shall have little to say.

The bush fig, so called, has long been growing at Lahaina, as it has been in most parts of the islands. With us it has had no care, and its fruit has been of little account. About twenty years since Mr. Richards planted a fig tree of the common kind on his premises; but it was in an unfavorable situation, and never came to much. About six years since slips from it were planted in both the mission yards, by the wives of the Missionaries. Having the best maternal care, they grew rapidly, reaching in three years the height of 25 feet.—Some of them are now between 30 and 40 feet high, and not much less than a foot in diameter at the base. They yield one crop of rich and luscious fruit in a year, an abundant one too. The branches

trimmed from half a dozen trees will do not a little towards filling up the wood pile. The house wives too, pronounce the wood to be first rate for the purposes of cooking. But we are beginning to doubt the economy of raising such trees. Our doubts arise from the aristocratic character of the tree. In whatever corner placed, the tree, by its branches, its roots and offshoots from the roots, soon comes to occupy the whole yard, like a game cock, turning all other things out. I estimate that half an acre well set with these trees would furnish a family with fuel for the whole year, and fruit for half the town. But it might occupy half the time of one man to trim them, and if the upper growth were kept within limits, on the sapping and mining principle, they would soon take effectual possession of neighboring lands. Several at Lahaina, have lately planted the cuttings of what are called Turkey and China fig, which are said to be more humble and modest in their growth, and to yield an abundance of richer fruit.

Yours respectfully,

D. BALDWIN.

Mr. President:—After reading the very able and full report of Mr. Baldwin, from Lahaina, on the Vine and Fig, I feel some hesitancy in presenting any thoughts of my own on this subject.

If the alluvial soil of *Lahaina Lalo* was a fair specimen of the adaptation of the soil of these islands for the cultivation of the vine, there would be no question as to the facilities for producing the grape in great abundance here; but every old resident upon the islands, knows, that Lahaina stands prominent, in this particular, above any other spot in the group. Hence in inquiring how we may best cultivate the vine in the region of Honolulu, we need to make provision for overcoming many obstacles, which are not encountered in its cultivation at Lahaina.

1st. In the greater part of Honolulu proper, we believe the depth of soil varies from one to four feet, probably the average would not differ much from three feet, and this is rather a close and heavy soil, than a light and sandy one. So we think the soil itself is not that, in which the vine flourishes best. But a greater drawback is perhaps to be found in the fact, that the soil in many places rests upon a bed of coarse black sand or decomposed lava, so open and porous in its

nature that it will not retain the moisture that comes down to it through the overlaying soil. Thus with the penetrating rays of a tropical sun from above and a sieve-like substratum of sand beneath, it is strange that vegetation of any kind flourishes as well as it does. It is found by those who have given careful attention to this subject, that the roots of the vine will not strike deep nor run very far in a horizontal direction, provided they can find plenty of their appropriate nutriment near at hand; hence if we can supply the vine with its proper food, by means of manures, we can in a great measure overcome the drawback of a soil dried on the surface and drained at the bottom.

On the subject of manures, two things are chiefly to be regarded.—The character of the substance employed and the method of applying it; both of which should be modified somewhat by the character of the soil in which the vine is planted. On this subject I beg leave to quote from an able English writer, on the cultivation of the vine, where he says, that the great object to be secured in the application of the manures to vines, is, "to impart to the roots the highest degree of nourishment, combined with the greatest permanency of duration; and adds, that of this description of material are bones, horns and hoofs of cattle, bone dust, the entire carcasses of animals, cuttings of leather, woolen rags, feathers and hair; and of liquid manures, urine, soot dissolved in water, the clearing of dung heaps, soap suds and every description of liquid refuse that proceeds from a dwelling house or habitation."

Of all the above enumerated manures, it is generally admitted that bones are the best. In their decomposition they seem to furnish just the kind of food upon which the rootlets delight to feed. Any one, who has a vine growing, can easily satisfy himself on this point, by depositing some bones near the roots of his vines, sufficiently buried to retain a proper degree of moisture, and at the end of six or nine months, (if the vine is in a flourishing state,) by carefully removing a portion of the crust from the bones, he will perceive how the roots run to them, and fatten, and how the little fibres penetrate the small crevices of the bone, inside and out.

The superiority of bones over all other substances as manures for the vine, seems to arise from several causes. One is that the decomposed bone furnishes the right kind of nutriment. Another is that it

decomposes so gradually, as to furnish a constant snpply. So that there is not that danger of an overgrowth as in the stimulating effect of liquid manures; nor that necessity for disturbing the roots by replenishing the soil, as in cases where a less permanent material is employed.

If I might venture humbly to suggest the best method of preparing a vine bed, either where the vine has been already planted, or is yet to be planted, (in the region of Honolulu,) I would propose something like the following:

Make an excavation of the earth, within one foot of the vine, in a circular form if convenient, if not, in a straight line, let the soil be thrown out to the depth of two feet, for a distance of five feet in length and three feet breadth, being careful to keep at least one foot of close soil between the bottom of the excavation and the black sand beneath. Then fill in one foot of this excavation with the following substances: bones, the fresher the better, let some of them be cracked or broken, unless the bones of smaller animals can be mingled with those of larger ones, small pieces of bricks, small porus lava stones the size of a hen's egg, old shoes, old hats, India rubber, dogs, (being sure that they are dead,) having all the above filled in with fine dirt made up of the soil thrown out, the sweepings of a public street, and fine manure. The next foot of the excavation may be filled up with the soil taken out, united with fine manure and an occasional sprinkling of black sand. The surface of this bed should not be planted, but be kept clear of weeds and grass, and rendered loose by an occasional stirring to the depth of five or six inches. The object is to keep the upper foot of soil in such a state that the rays of the sun can easily reach in its effects the second foot, and thus help to fertilize the material, which is to constitute the chief source of nourishment to the vine. It may be objected that this requires a great deal of labor.—True it requires some labor and more care, but when it is once done, it is done for fifteen or twenty years, all except keeping the surface clear, and it will cost but little more to make this provision for ten than for one vine, provided they are pretty near together. Nor should we expect to escape the general condition of mankind in the acquisition of good things, as expressed by the Ancients, "that the Gods give nothing good to mortals without labor."

In the location of vines in this vicinity, all other labor will be lost

unless great care is taken to shelter them from the stormy trades. A man with diseased lungs is hardly more sensitive to the cold air, than the growing vine to the rude winds. The evil does not seem to consist merely in the bruising of the unguarded and tender parts, but the winds seem to penetrate the very life of the plant. I have myself observed that a few hours of stormy wind at Lahaina, stopped the growth of a flourishing vine for several weeks. The subject of pruning is too ramified in its nature to be entered into at length.—Without care on this subject there may indeed be a flourishing vine, but there cannot be much fruit, and what there is will be of an inferior quality. On the general subject of pruning, an English author has the following simple rules, which seem to me entirely applicable to this country:

1st. "Always cut upwards, and in a sloping direction."

2d. Always leave an inch of blank wood beyond the terminal bud, and let the cut be on the opposite side of the bud.

3d. Prune so as to leave as few wounds as possible, and let the surface of every cut be perfectly smooth.

4th. In cutting out an old branch, prune it even with the parent limb, that the wound may quickly heal.

5th. Prune so as to obtain the quantity of fruit desired, on the smallest number of shoots possible."

In planting new vines, it is common, and perfectly natural, that the planter should desire to obtain fruit as soon as possible, but it is nevertheless true, that this haste makes waste in the end. The young vine is often encouraged to bear before it has acquired sufficient strength to bring the fruit to maturity. One result is a very imperfect quality of fruit; where this does not appear the first year it is very apt to the next. Another effect is that the vine is so weakened by the effort to produce before it was able, that its growth is retarded, and not unfrequently the vine itself pines away and dies.

The best directions I have seen in regard to the capacity of a given vine to produce fruit are found in a carefully arranged table, on this subject, by the writer already referred to, where he gives it as the result of a great variety of experiments carefully taken, that no vine should be permitted to mature fruit until the circumference of the

stem just above the ground measures 3 inches; and that the scale of the greatest quantity of grapes which any vine can perfectly mature in proportion to the circumference of its stem would stand thus:

Circumference	3 inches,	5	pounds.
"	3½ "	10	"
"	4 "	15	"
"	4½ "	20	"

and so on as the stem may increase. In the application of this rule, the writer adds, that he has found as a general rule, that with a well pruned and thrifty vine, each bunch, or blossom for a bunch, may be calculated as producing a half pound of grapes. Thus begin with a vine of 3 inches, blossoms for branches should be spared to the amount of 10, as the vine is supposed to be capable of maturing 5 lbs. of grapes. This is a simple rule, and easy of application to those who will exercise a little patience. We apprehend the most important part of this rule lies in the first starting point, viz, that no vine be permitted to mature fruit until its circumference measures 3 inches where the stem comes out of the ground.

We are glad to know that Mr. Montgomery has introduced several excellent varieties of the grape, and has them in a flourishing condition in his garden. Mr. Janion (now absent) has some choice varieties on his place in Nuuanuu, old enough to bear, though he told me a year since, that he had not succeeded with them as well as he could wish, in the maturing of the fruit. We are pleased to note, that the culture of the vine is receiving an increased degree of attention among the citizens of Honolulu. We think that with care, good grapes can be grown here, and when we consider the high price and the inferior quality of the most of those offered in our market, and the luxury of a plenty of good grapes for the table, and also the healthful tendency of this kind of fruit, we may find sufficient reason why the culture of the vine should receive more attention than it has previously had.

The general subject of the adaptedness of these islands, as a group, for the abundant production of the grape, is too broad a field to be entered at this late hour. The question is an open one. Yet when we consider the natural wants of the vine, in soil, climate, freedom from winds, etc., so far as our knowledge of the islands extends, we are inclined to the opinion, that with the exception of a few favored

spots, the group is not *naturally* adapted to grape growing. Nor are we disposed to vary from this opinion from the very general remark, "that volcanic countries are the best vine growing countries." The summit of Mouna Loa is doubtless a volcanic region, but nevertheless, it is not particularly adapted to the cultivation of the grape.

T. E. TAYLOR

REPORT ON LABOR NO. 2

It had been forseen by persons engaged in agriculture on these islands, that the aboriginal population could not be depended on as laborers, long before the experiment of introducing the Coolie race was tried; hence the efforts which have been made by a few private individuals to render themselves to a certain extent independent of the caprices or exorbitant charges of the native by enlisting in their service a foreign race of men.

But a comparatively small part of the soil of these islands capable of improvement has as yet been brought under cultivation, and the very small portion comprised in plantations is almost entirely dependent on the Coolie labor for a continuance in its present improved state. Before long new plantations will perhaps be formed and in that event new importations of foreign laborers will become necessary, as the numerical weakness of the native race will render their services less and less available with the establishment of every new plantation.

From various circumstances the introduction of foreign labor has been defective in character. Males only have been introduced into a community where they already greatly preponderate in number over the other sex. It has been sought only to provide for the exigency of the moment, and thus the whole of the laboring community in the districts where these foreign laborers have been located is placed in a most inconvenient and unnatural position.

Upon consideration of the very low state of morality both of the native population of the islands and of the men who are introduced

among them, the evils that are likely, nay certain to result from this partial and imperfect system of re-peopling the islands will be readily perceived. The laboring population instead of being permanently benefited will suffer a serious injury. The licentious and indolent habits of the natives will prevent their working while they can obtain the means of subsistence in any other manner—disease and death will consequently do their work with inconceivably greater rapidity than they have hitherto done to the speedy extinction of the aboriginal race.

The adoption of the only means which I can discover of arresting the impending evil, would in my opinion, be productive of benefits to the country as great in proportion, as its rejection of ultimate calamity and ruin.

The measure I would propose is the importion of women as well as men from China.

The first question which offers itself in connection with this scheme is: What are the advantages that would result from such a measure? In reply I would say: first, a good supply of domestic servants would be obtained; secondly, a certain number of females can always be profitably employed on plantations, in making mats and bags for packages for produce, and at a variety of other light work; thirdly and principally, by encouraging their marriage with the men already introduced, and others who may hereafter be brought. Vice, disease and consequent loss would be prevented; it is besides probable that the whole of the people so introduced, would, when the term of their servitude was expired, find it to their interest to become permanent settlers on the islands.

The next question which presents itself is: Is the scheme practicable at a moderate expense? I have no knowledge as to the inclination of the Chinese women to leave their countries. By some of the Coolies whom I have questioned on the subject I have been told that the women would be glad to come, and by others that they could not be induced to come. This question should be answered before any active steps are taken, and would be most satisfactorily answered at some of the ports in China. We already know the cost in one or two cases of the introduction of men, and I should think by making different arrangements, the cost for introducing the women could be reduced to a much smaller amount.

The third and last important question is: At whose cost should they be introduced? To this I would reply, that as the measure is proposed to benefit the entire community, by the community should the burden be borne. The necessary funds can be raised without imposing one additional dollar of tax, and the very means that I should recommend to raise them would be an additional benefit to all classes of the community. It is well known to most persons who are in the habit of travelling about the islands, that there are hundreds of thousands of acres of land entirely uncultivated, and from which their owners receive but a mere trifling, if any return.

Now the measure I should propose is, that periodical auction sales of Government lands should be effected, and the proceeds applied to the purpose in question, for which a small annual sum would suffice. The women upon application for their services, should, under certain rules and restrictions, to be complied with under bond and penalty before indenture, be distributed where they might be required, but especially in those districts where their countrymen are settled; they should be required to work for a certain period of time for their food, clothing and a small stipend, and upon its expiring they should be free. By this means foreign capital would be invited into the country, large quantities of land now of no service to any one would be brought under cultivation, and the rapidly decreasing population of the islands would be recruited by a healthy and industrious race of people.

It may perhaps be objected that as the individuals requiring the services of the women would be the most benefited by their introduction, they should be at the sole expense of introducing them. To this I would answer: men alone can perform the labor required by agriculturists, and the object of introducing the women is not so much to add to the immediate supply of labor as to secure the future prosperity of the islands by introducing a new element of population which may re-invigorate the native race, or if the latter be so effete as to be incapable of restoration, supersede it.

I may say that I consider it as much the duty of the Government to

supply, it possible, the deficiency in population, as it is to build a new court house or bridge that may be required; and that if a few individuals for their own purposes and on their own responsibility, introduce a new race of laboring men into the community, it devolves upon the Government, having the means at its disposal, and taking into consideration the decreasing population of the islands, to introduce an equal number of women of the same race and class, and by so doing to perfect the inceptive efforts of those enterprising individuals, and make their undertakings permanently contribute to the general good.

G. RHODES.

REPORT OF THE COMMITTEE ON SEASONS.

To E. G. Beckwith, Esq., Chairman of Committee on Seasons:

DEAR SIR:—I am not sure that you need or desire aid in preparing your report on seasons. Still I think it not improbable that you would consult your fellow committee, could you see them, especially as you have not long resided on the islands, and, if I mistake not, have not visited other islands of the group than Oahu. With some of the committee you may have had opportunity of confering; but as I do not expect to attend the meeting of the Agricultural Society, I take the liberty of committing to paper and sending you a few suggestions which you may use at your discretion.

I have no meteorological observations to offer you, as I have not the means of watching them with accuracy. You can easily imagine that the temperature of the islands, though remarkably even, varies somewhat according to different localities, height of lands from the sea, prevalence of trade winds, &c. At Makawao I have seen the thermometer a trifle below 50 degrees, and Haleakala, our noble mountain which rises 10,000 feet above the level of the ocean, submits yearly to a cap of genuine New England-like snow. This she sometimes wears a week or more at a time, though she commonly doffs it in a day or two. A series of crops of snow as we sometimes have them, indicates as the natives think, a season of fruitfulness.

The seasons, though they have a general resemblance from year to year, are by no means so stereotyped as to admit no variety, and to require no judgment as to the time of sowing and planting. Commonly from about April 1st the rains are "over and gone;" and the season is delightful till November. Other seasons, like the present, are more wet and cold. Since April, 1853, we at Makawao and and Hamakua, have had rain nine days in ten, which has retarded the growth of wheat and other grains, and made it well nigh impossible to do business in the shape of farming or other out-of-door work. I do not however, apprehend any serious loss in wheat or any other vegetable production, in consequence of the abundant rains. Indeed while I was beginning to feel anxious on account of the crops, and was beseeching Ged to look upon the "bow of promise" and remember His "covenant" with the earth, one of my people said to me in reference to the rains, "we think this is the beginning of the millennium."

Seasons at Hawaii are, on the whole, much in accordance with the division made by the Great Proprietor of all in the time of Noah—"summer and winter, seed time and harvest." They however, *lap* over or *dovetail* into each other, so to speak, more decidedly than in more northern latitudes. This may not perhaps abate the pleasantness of the seasons, but it is the cause, I think, of failure of securing as good crops as would be secured were the seasons more marked.—In northern latitudes the farmer has a short time only for planting his corn, beans and potatoes. He must be awake at *the* season or he loses all. But here, one advises to plant in November, another says February or March is the proper time, while another still thinks April or even May will do as well. Amid all this conflict of opinion, one puts off till the last moment, and then looses all by the cut worm. Where we can obtain a sufficiency of seed of all kinds, it will be an obvious duty to be "in season" and there will be no harm if we add the other part of the exhortation—viz: "out of season." The late Mr. Locke of Waialua, Oahu, who was a model of industry and enterprise, acted on this plan, if I mistake not. When he lost a field of young corn or beans by the cut worm, or from an unfavorable season, he threw in the plough and planted again. His perseverance,

if it did not enable him exactly to conquer all difficulties in the business of successful cultivation of the soil, enabled him to make additional advances in the road to success; and if he had been spared, would have enabled him to conquer many of the difficulties which encompass the path of the agriculturist at the islands. Would that we had a few men of the stamp of Mr. Locke in every district on the islands; under God, they would effect a change as cheering as beneficial.

Seasons at Hawaii! Need I say Mr. Chairman, that in this respect we are highly favored, and at the same time are partially exposed to temptation, and need to be exceedingly watchful and industrious. Allow me to dwell briefly on these circumstances and duties.

We are, in regard to the climate, highly favored. Well may we say as did an ancient worthy, "The lines are fallen unto us in pleasant places; we have a goodly heritage." So far as climate is concerned, few countries, if any, equal the Sandwich Islands. God has done his part to make it the garden of the world. As an ordinary arrangement, think of the number of sunny days we have in the course of the year. And yet lest His creatures should faint beneath the scorching rays of the sun, He has provided a wind of a most remarkable character, to fan almost constantly, our fields and gardens, enter our windows and ventilate our parlors, dining and sleeping rooms; while yet He saves us from the tornadoes which destroy the fruits of industry in other countries of nearly the same latitude. And in those sections where the trades do not reach, there He who remembers that we are dust and need His constant care, furnishes the sweet sea breeze by day and the cool but gentle land breeze by night as a kindly substitute. And what country has a brighter moon, than our adopted one? or stars that "burn around her" with an intenser glow? or planets that more emphatically spread "His truth from pole to pole?" All these, and others which I need not mention, constitute the Hawaiian Seasons concerning which you Sir, are to report. If any one shall suggest or think even that I paint the seasons too highly, let me add that if the multitudes who have tasted the sweets of an Hawaiian climate, and spent, if only a few, of its delightful seasons

here, and who have then changed their residence for the United States, I have scarcely known one who has not longed intensely to return to the islands. Why this, unless we have charming seasons? Exemption, if temperate in all things, from wasting sickness, and from many ills which affect most persons in colder climates, freedom from excessive labor, and from the mortification and distress arising from *duns* and *law-suits*. Why, my dear Sir, one could well nigh be eloquent in speaking of the charms and advantages of the seasons at the Sandwich Islands. And I cannot but add that our bounteous Creator, in giving us such seasons, would kindle our gratitude—draw out our best, our holiest affections, and fasten them on Himself—would secure our highest services on earth, and thus prepare us for the enjoyment of Himself in that world where all seasons are swallowed up in one, and that perfect and eternal. And yet, strange as it may seem, our charming seasons may become a fearful source of temptation. They are so to the Hawaiians. They induce indolence. Indolence is making them effeminate: keeps them poor and vicious, and in a word is destroying the natives. They need the corrective influence of winter. The frosts of December would teach them effectually, what they cannot now learn, to wit, that they must work or die. Now they can make a shift to live, though they neglect to sow and plant; and the poorest of them can ride his own horse.—The seasons of a single New England year would either change the Hawaiians to an industrious race of men, or would whiten the fields with the bones of horses and cattle. I have sometimes almost wished that the people who seem so little affected by all the appeals I can make to induce them to become industrious, could have a taste of a Northern winter.

But Hawaiians are not the only ones to whom our charming seasons become a source of temptation. Men from Europe and the United States are affected similarly. They find that they can obtain a certain kind of a living by toiling a small part of the time. Why should they submit to the tug of labor when they can *live* without it? The actions of many declare plainly that they will do no such thing! Others there are who can by no means consent merely to vegetate, rather than work. They scorn to descend to the calabash and eat

with dogs and swine. But they feel the enervating enfluence of the climate. True they could a obtain a comfortable living by moderate work, but they desire to be *rich*. Hence, they quit the plough, the spade, the sickle, the work bench, and go into this and that speculation. As a consequence, they often fall into temptation and snares and into many hurtful lusts. If such has not been the experience of many a man among us, then my senses greatly deceive me. And the danger to-day is as great as ever. Hence the importance of *watchfulness* and *industry* to turn the advantages of Hawaiian Seasons to the highest account.

Am I extravagant in asserting that the members of the R. H. A. Society are placed in the Providence of God in circumstances peculiarly favorable for exerting a very powerful and happy influence?—Who have we as members of this Association? His Majesty, King Kamehameha III. has by permission, been declared to be the patron of the Society, and the Prime Minister of the King and all the high chiefs are members. We have all the Ministers of State, Consul General, U. S. Commissioner and Consul, and the Consuls for all foreign nations with which the King has formed a treaty. We name the Judges of all the Hawaiian Courts; lawyers, physicians, merchants, mechanics, planters, teachers of schools, and ministers of the gospel, and perhaps I should add, gentlemen at large. Here then we have nearly all the intelligence, the wisdom, the industry, the common sense, the tact and the benevolence on the islands. Not to attempt to complete or weigh these attributes and attainments, allow me to say that, in my opinion, they are very respectable, and if circumstances would allow, they may be turned to a high account. And where are we I ask? On one of the most charming spots, so far as the Maker is concerned, on earth. A spot that might be the first that shall realize the glowing prophecy of the Poet—a spot where

> ——— "the reproach
> Of barrenness is past. The fruitful fields
> Laugh with abundance and the land, once bare,
> Or fruitful only in its own disgrace,
> Exults to see its thistly curse repealed.
> The various seasons molted into one
> And that one season an eternal Spring.
> The garden fears no blight and needs no fence
> For there is none to covet, all are full."

Here then we are placed in the Providence of God, to exert what influence we may be able to exert, in filling this our island home with the fruits of industry, of intelligence and holiness. The King begins

according to the Constitution, the Patron of the Society, the Prime Minister, some of the chiefs also, and others of the people being fellow members, we have a duty to perform in reference to the Hawaiians, chiefs and people, in relation to the soil from which we all draw our sustenance. The duty which we owe them is, to awaken them thoroughly to the importance of becoming fellow laborers with us in filling the land with cultivated fields, and pleasant dwellings; with good roads, and bridges across their rivers; with school houses, and houses for the public worship of God, with wealth, intelligence, peace, purity and happiness.

Now let me repeat the question. Are not the members of the R. H. A. Society placed in favorable circumstances for exerting a most powerful and happy influence? Yes, my dear Sir, and confident am I that if each member would do his whole duty both by precept and example; would be self-sacrificing; toil for the nation instead of laying up treasure for his children; teach the chiefs and people to be industrious, temperate, and pure; would cast in his lot with them, and bequeath to them his children; would labor to make this his adopted home, the very garden of the Pacific; the model islands so far as cultivation, and roads, and pleasant villages, and schools and churches are concerned; in a word, if each would determine that he would leave no measure untried to secure the present happiness and the endless good of this nation, then *all* would ere long find occasion for unfeigned thanksgiving for so interesting a sphere of usefulness.—All too, would realize a reward of the richest character—worth more than untold gold—a reward in exemption from the corroding cares connected with riches—from the empty enjoyments of a life of pleasure, and from the intolerable satiety of a life of indolence—the rich reward of a sweet consciousness of having done good in our day and generation, of having filled up our days with duty and usefulness.

The present, if I do not mistake the signs of the times, is the season for laying the foundations of future generations of Hawaii, and of the numerous isles that stud the mighty Pacific. Once we said that God had placed us at the outer border of His creation, at the ends of the earth. He has now shown us our mistake. We are exceedingly central. Few spots on the broad earth are destined to be of more importance than this little group. Let us then be awake to our duty and privilege of making it the happy home of our children, and our

children's children; the happy home also, of those to whom God gave it, so long as He shall continue them a distinct independent nation—which may He long do—the happy home, finally, of the stranger and sojourner who shall visit our shores for business or pleasure. In laboring to effect all this, do we not need to be *watchful* and *industrious*? God grant that the members of the R. H. A. Society may show themselves equal to the exigency of the times—may so fill up their short and uncertain season of toil, that they may enter upon and enjoy with the highest zest, the season of eternal rest.

Yours, in behalf of the Society,

J. S. GREEN.

REPORT OF THE COMMITTEE ON ROADS, HARBORS AND INTER-ISLAND NAVIGATION.

Since the formation of this Society, there has been constructed 902 feet linear, of tolerably substantial truss bridging, on good stone (dry laid) abutments; all of ample width and over streams of the most difficult passage—the lines of the greatest travel throughout the islands. This work has been done, mainly, by Government.

The amount of simple bridging your committee are unable to state, but the total length far exceeds that of the truss bridging. Some has been done by Government, but most of it by the annual road tax.—The latter is not always of the most substantial kind, but answers temporarily its purpose.

Your committee feel bound to acknowledge that the results in road making under the present system have equalled their highest expectation. From no roads at all, at the organization of this Society, there have been constructed about 150 miles of carriage road and about 450 miles of bridle road—not always of the best kind, but passable.—The necessary bridging only is now required to render them complete and travelable at all seasons.

Your committee look with pleasure upon the changes made in the road law by the Legislature, hoping that the low commutation therein provided will supply the means for the speedy completion of the

necessary bridging, which could not otherwise be obtained, except directly from the Government treasury.

As the system of electing annually new Supervisors, is considered a false and an injurious one by the best authorities on the subject in other countries, your committee regret that it is still continued here. The new law which the present Legislature has ameliorated was, and for the present is, a violent one, but perhaps under the circumstances no better one could have been devised that would have accomplished so much.

Your committee are sorry to state that there have been no improvements of our harbors since the organization of this Society, with the exception of two wharves at Honolulu and a part of a breakwater at Lahaina. The "condition of our harbors" is a subject of such vast importance to the prosperity of this kingdom, that your committee feel it a special duty to urge this Society to use its strongest influence with his Majesty's Government in making "improvements therefor." It has been ascertained from actual examination by one of your committee, that the harbor of Honolulu can be increased nearly one-third its present size by a judicious system of dredging.—As it is the principle port of resort for shipping of a rapidly increasing commerce, we would urge immediate attention to its enlargement, as well as to the improvement of the present available port which is fast filling up.

It is the received opinion that the kingdom of Hawaii possesses but few safe harbors for shipping. This is true, if perfect safety at all times is implied—but the important fact that there are scarcely ten consecutive miles of sea-coast at any one part of the islands but what anchorage or a landing can be effected almost every day in the year—is not so well known. This fact will become more apparent as the wants of the people in the different localities require the aid of commerce.

Our Statute laws authorize the erection of a Light House on Kakaako Point on the east side of Honolulu channel, whose slumbering light, your committee confidently predict, will rise and shine, to the infinite delight and benefit of all concerned so soon as the means are provided.

The filling in of the reef that makes off from the Fort in Honolulu, and the building of a new wharf for the accomodation of bulky and

heavy freights, is very much needed; and your committee are glad to perceive that the attention of the present Legislature is being given to this important subject.

"Inter-Island Navigation" is a subject which your committee feel some delicacy in "suggesting improvements therefor." It is well known that the number of vessels engaged in the trade are more than what find adequate support. Perhaps they receive from the business and travelling community all the support they deserve, for they are, with few exceptions, of the most wretched description.

This state of things, your committee believe, is owing to the absence of all law prohibiting unseaworthy vessels from running, and the spirit of our navigation laws which bear so heavily on all Hawaiian vessels desiring to go foreign. Your committee believe that the enactment of a law in accordance with the above suggestions would be the means of drawing into our trade a better class of sailing vessels.

Your committee, as well as the community at large, feel keenly the want of steam vessels in our coasting trade; and we believe the time has now arrived when such an enterprise can be carried into successful operation. The Caloric engine affords a cheap motive power, and the certain establishment soon of a foundry and machine shop in Honolulu, does away with all contingencies in regard to the repair of machinery. The great obstacles heretofore in the way of such an undertaking are now removed. The project now set on foot by the people of Honolulu to introduce a steam vessel into our coasting trade, your committee have good reason to believe will be accomplished; and if managed with a small degree of prudence will prove remunerative to the stockholders.

Respectfully submitted,

T. METCALF, *Chairman.*

KAALAEA, June 4th, 1853.

To the Chairman of the Committee on Roads:

SIR:—As a member of the Committee on Roads it is to be supposed that I will endeavor to assist you in framing your report, and I really feel considerable difficulty, circumstanced as we are, in making any suggestions that are likely to be of use.

The present roads on this island, except those in the vicinity of Honolulu, are generally as bad as nature, assisted by art, can make them. I speak more particularly of the road through the Koolau district, in which I reside, which runs a good deal through swampy land, and is formed of the mud thrown up from each side, and thus in wet weather becomes of the consistancy of three finger poe. The bridges, (by courtesy,) for grating would be a more proper name, are generally so narrow and frail that every time a person on horse-back passes over one of them he is astonished at finding himself across without broken bones, or a ducking at least.

It is unnecessary for me to say anything on the present waste of labor in the endeavor to make hard roads where the material is carried along at the ends of a stick or in a calabash.

I am in some hopes however, the new road bill of this session will put a little more hard cash into the hands of the Road Supervisors, and that, properly applied, will enable us at least to have bridges, which, in all cases of swampy land, I would recommend, should be built of wood (pine or other durable timber,) as being cheaper, and if well painted and pitched may be calculated to last 10 or 15 years, before which time I hope that the agricultural resources of these islands will be so far developed that their renewal will be a small matter.

If we once had good bridges we could then either hire wagons or buy them and gradually, filling the worst places first, attain such a state of perfection as will enable a wagon to leave Honolulu by Diamond Head and return by Ewa.

Another thing—Road making not being a mere matter of instinct, it ought to be the duty of the Superintendant of Public Works or other skillful officer to see at least to the bridge building part of the work, otherwise great loss will be sustained from their inefficient construction and misplacement. I am Sir, yours, &c.,

WM. WEBSTER.

LETTER ON THE SUBJECT OF GUANO.

FOREIGN OFFICE, June 1st, 1853.

To the Hon. William L. Lee, President of the R. H. Agricultural Society:

SIR:—Among all the *manures* for the recovery of exhausted earth, and for enriching poor soil, I believe the first place is now given to "Guano." Knowing the warm interest that you take in the promotion of Hawaiian Agriculture, I confidently submit to you the following extracts from communications addressed to me by Thomas R. Eldridge, Esq., the King's Charge D'Affaires, in Lima:

From a letter dated 27th Oct., 1852.—"It would be very interesting to me to know if the guano left at Honolulu by the "Harpooner" had been sold, and at what price, and if the Agriculturists of those islands would purchase this article at $2,50 per quintal, and in what quantity, The importance of this manure must be well known at the islands; in small quantities, perhaps it might be introduced there, with good results."

From a letter dated 5th Dec., 1852.—"I am very anxious to know if anything can be done with guano at the islands; you must have observed the favorable reports of it from every country, where it is used; lately it has been tried by the tobacco planters in Cuba, with great success, increasing the crops ten-fold and improving the quality. It is now being sent to the Mauritius for the sugar estates; in this country (Peru) it is used by the sugar planters with success. I hope some of the "Harpooner's" cargo may have been tried on some of the farms on the islands; if the farmers can afford to pay $50 a ton for it, I can make a contract with this Government to supply them with as much as they require."

From the same letter, on Salted Beef.—"I have observed that your graziers talk of salting beef. This is a staple article in this market, if it is good and will keep, and may be shipped to Callao, with prospects of good results. At present it is worth $20 per barrel, but the price usually ranges from $10 to $12, and salt sells at about 28 to 20 cents per quintal at *Huacho*."

It may not be out of place, here, for me to add that Edward Beyerback, Esq., the King's Consul General for Chili, wrote to me from Valparaiso, on the 15th Sept. 1852, that there was a demand for the

Distilleries there, of sixty or eighty thousand gallons of molasses, at 25 cents per gallon; and again on the 9th February last, that the price was 26 1-2 cents per gallon.

If you think these particulars important enough to be laid before the Society over which you so worthily preside, you are welcome to do so; and I beg leave to add the same in regard to the two samples of Hawaiian wool which I enclose herewith. I received them only yesterday, from Mr. Edward Sparkes, of Waimea, Hawaii, with a letter dated 3d May.

With much respect, I have the honor to be Sir,

Your most Obedient Humble Servant,

R. C. WYLLIE.

P.S.—You know, of course, that the quintal is 100 pounds Spanish.

In 1842, Messrs. Gibbs, Crawley & Co., of Lima, sent a few bags of Guano by the schooner Denia. I gave part of it to the late Wm. Paty and to others, but never obtained any report on its effects.

R. C. WYLLIE.

REPORT OF THE CORRESPONDING SECRETARY OF THE MAKAWAO AGRICULTURAL SOCIETY.

To the Hon. William L. Lee, President of the R. H. Agricultural Society:

My Dear Sir:—You will see on reading the minutes of the last meeting of your Society, that certain individuals on each principal island of the group, were requested to use their efforts to form local societies, auxiliary to the R. H. A. S., on their respective islands.—Being one of this number, I have to report the formation of the Kula, Makawao and Hamakua Hawaiian Agricultural Society, and as Corresponding Secretary, I beg leave to state the facts, few in number, and in themselves of small importance, pertaining to agriculture in this district, and to address you in behalf of the infant Society.

At your last meeting, in the Report on Wheat Growing, which I had the honor of presenting, I remarked that the people at Makawao

had lately formed an Agricultural Society. This was little more than nominal, though I trust it was like the breaking up of the fallow ground—a great deal of effort being necessary to make even a beginning in this work among a people so rude in their method of husbandry. We have since re-modeled the Society; and some things we have done, I am happy to say, which look in the direction of agriculture.

During the last year and since the formation of our Society, more lands have been purchased in Kula and Hamakua, than in any other previous year, and I think than all previous years since the Government began to sell lands. The obtaining of the right in fee simple, to the soil, lays the foundation of all successful agriculture. Men will not act without something in the shape of a motive; Hawaiians need a powerful one. They must own, bona fide, the land on which they live or they will do little in the shape of cultivation. Hence the efforts which the friends of the people have been making of late years to induce the the Hawaiian Government to sell, at a low rate, a small piece of land to every man who wished to purchase. Hence also the efforts which have been made to persuade the common people to wake up to the importance of securing each a small farm—a home for themselves and children. To me it is a matter of unfeigned thanksgiving, that so many of the poor, and till quite lately, *landless* Hawaiians, have obtained lands for themselves and for their children. I know you will rejoice with me for the favor of God and the favor of the Government thus shown the Hawaiians. They will no longer have the shadow of an excuse for refusing or neglecting to cultivate the earth.

In Hamakualoa, where quite a number of the people have lately purchased lands, Mr. Gower, with whom they do their business of this sort, tells me there is a good deal of industry in seeking the means of paying for little farms. At present, many are busily employed in making fish nets, as these are in much demand and bring ready money. When they shall have paid for their lands, I trust they will cultivate them, and develope the resources of that fine country.

In Kula the renewed demand of late for the Irish potato has called forth the energies of our people in that region, and has made money more plenty than it has been since 1850. Mr. Gower has received a

much larger proportion of the pay for the land which he sold to the Honuaula and the Kula people than he expected he could possibly obtain. I have strong fears however, that the people of Kula will be mere raisers of potatoes and potato merchants, rather than farmers of the Yankee fashion.

At Makawao there has been a beginning made in the raising of wheat. One native Hawaiian has 10 acres of fine looking wheat, and two others have an acre or two each. Two of these would have had four times as many acres could they have obtained seed. This is "the day of small things," but it is not to be despised. If nothing shall befall these 12 or 14 acres, there will be more wheat taken from them than the whole Hawaiian nation has produced up to this year. If the owners take good care of it, there will probably be enough to sow 200 acres in 1854. In other respects some of our people are increasing in industry, and if we can be let alone for a half a dozen years—undisturbed by the democracy of the United States, which in its far-reaching—not to say, *over*-reaching—benevolence, aims to annex all creation, there will be ground to indulge a faint hope that some portion at least of these islands, will be converted into fruitful fields, on which will rise pleasant dwellings, and schools and churches.

I therefore address you Mr. President, and through you the members of the R. H. Agricultural Society, in behalf this feeble branch. In doing so I "open my mouth for the bunch," for could our Society meet with you, no one of them would be able to listen understandingly, to your addresses, nor engage with you in the discussions of the parent Society. I therefore entreat you to feel the deepest interest in making the Hawaiians an agricultural nation. Unless it becomes such as a nation, i. e. unless the great body of the people cultivate the earth habitually and cheerfully, I do not think the nation as such will long survive. I therefore desire you and all the members of the parent Society to instruct the Hawaiians, chiefs and people, as you are able, in the duty which they owe themselves and their nation relative to the cultivation of the soil. Let all who can do so, connect themselves with the local auxiliary societies which I hope to hear, have been formed at all the Missionary Stations on the islands since

your last meeting. Make addresses at their quarterly or monthly meetings, encourage the most intelligent of the people to examine agricultural subjects, and to make addresses at their own meetings. Encourage the branch societies to vie with each other in raising produce and cattle, and to get up annual fairs, to exhibit also at the fairs of the parent Society. In a word, do all in your power to arouse the nation from the lethargy of ages, to feel the importance of becoming an intelligent, industrious and happy agricultural people. Teach them also, I beseech you on their behalf, by example. O, my dear Sir, did you ever think how extremely cheap is good example? And yet how powerful! If consistent, 'tis well nigh irresistible. True, the example of the laborious farmer costs him often a weary frame, and an aching head. He may have a rough, hard hand and a brown face, and must submit to the inconvenience of coarse apparel and soiled garments. But all this is well nigh infinitely more comfortable than the state of the idler with all his finery and starch, and airs.—But it may not be necessary for you all, or for many of you to exchange the broad cloth for the *tow* garment, or even for the coarse cotton one. But I think it would do you all immense good occasionally to doff the broad-cloath, and lay hold of the hoe or the spade, or the shovel. Who does not need the glow of health and the flow of spirits which such an occasional half hour's employment would create? Show then *the example.* You would dignify labor and make it honorable in the sight of the Hawaiians who have no such examples in their rulers and important chiefs. Thus in serving yourselves in promoting your own happiness you would serve others, do good to a poor but interesting nation.

But my dear Sir, I may not neglect to say in this connection, that we greatly need more examples of regular, practical, every-day farming. The nation suffers exceedingly for want of example of this sort. I am not about to institute a comparison between the merchant, the merchant's clerk, the lawyer and physician on the one hand, and the farmer on the other. But I raise the inquiry, what can be done to furnish the people with examples of industrious farmers? They have example of speculators, and multitudes are rushing into speculation. They have examples of lawyers, and the danger is eminent

that half of the youth in the nation will become lawyers, and set every man's hand against his neighbor, until the land is filled with broils and contention. But where are the farmers in this and that district of the islands, who shall be content with a moderate number of acres, but who shall be satisfied with nothing short of the very highest cultivation of which the land is capable? God all gracious and long-suffering send us—not sugar planters, for we have a sufficiency of these for the present, and besides, the people cannot imitate the erection of sugar mills and the successful manufacture of sugar; not the cultivators of tobacco, for as you have heard Mr. President, or will hear from the minority report on that miserable weed, scarcely a greater curse can be inflicted on the land, scarcely a worse example be given the people than the cultivation by foreigners of tobacco—but send us men who shall have a genuine passion for farming; who shall hold on until the cultivation of the soil shall be honorable, and the entire group shall be filled with the fruits of industry, intelligence and holiness. Yours, in behalf of the

Makawao Agricultural Society,

J. S. GREEN.

LIST OF PREMIUMS,

FOR THE ANNUAL SHOW AND FAIR TO BE HELD AT HONOLULU, ON TUESDAY AND WEDNESDAY, THE 6th AND 7th OF JUNE, 1854.

CATTLE.

Class I.—Imported Stock.

1 Best Imported Ayrshire Bull, $20 or Silver Cup.
2 " Ayrshire Heifer or Cow, $10 or "
3 " Devon Bull, $20 or Silver Plate.
4 " Devon Heifer or Cow, $10 or Silver Plate.
5 " short horn Durham Bull, $20 or Silver Cup.
6 " " " Heifer or Cow, $10 or Silver Cup.
7 " Hereford Bull, $20 or Silver Plate.
8 " " Heifer or Cow, $10 or Silver Plate.

Class II.—Native crossed between Imported and Native Cattle.

9 Best Bull, $10 or Silver Cup.
10 " Cow, $10 or "
11 " one year old Bull, Diploma.
12 " " Heifer "
13 " yoke of Working Oxen over 4 years old, $5 or Large Medal.
14 " Milch Cow, $10 or Silver Cup.

The cow to be kept on grass only.

The time of trial from 1st of May to 1st June.

Statement to be furnished containing, 1st. The age and breed of the cow and time of calving. 2d. The quantity of milk in weight and also of butter during the trial. 3d. The butter made to be exhibited with the cow at the fair, and the statement to be verified by affidavit of competitor and other persons conversant with the facts.

15 Best fat Ox over 4 years old, $5 or Medal.
16 " fat Cow " " " "
17 " fat Steer under 4 " "

Applicants for premiums on fat cattle must furnish particular statements of the manner of feeding, and kind, quantity and cost of food, and all the expenses of fattening, if they are other than grass fed.

HORSES.

Class I.—Imported Horses.

18 Best blood Stallion over 4 years old, $20 or Silver Cup.
19 " " brood Mare, " " 10 "

20 " Stallion, horse of all work, over 4 years old, $20 or Silver Plate.
21 " brood Mare, " " " " $10 or Sil. Plate.
22 " Stallion, draught, over 4 years old, $20 or Silver Cup.
23 " brood Mare, draught, " " 10 " "

Class II.—Native Horses, (for all work.)

24 Best Stallion over 3 years old, $10 or Silver Cup.
25 " brood Mare with foal at her foot, over 3 years old, $10 or Silver Cup.

Draught.

26 " Stallion over 3 years old, $10 or Silver Cup.
27 " brood Mare with foal at her foot, over 3 years old, $5 or Medal.

Colts.

28 Best 1 year old Stallion, $5 or Medal.
29 " " Mare, Youatt on the horse

Geldings.

30 Best Gelding, $10 or a Cup.
31 2d best " Youatt on the horse.

SHEEP.

Class I.—Imported.

32 Best Merino Ram, $10 or a Cup.
33 " " Ewes, not less than two, Morrell's Shepherd.
34 " South Down Ram, $10 or a Cup.
35 " " Ewes, Morrell's Shepherd.
36 " Saxon Ram, $10 or a Cup.
37 " " Ewes, Morrell's Shepherd.

Class II.—Native and crossed between Imported and Native.

38 Best Native Ram, $5 or a Medal.
39 " " Ewes, Morrell's Shepherd.
40 " pen of Lambs, $5 or a Medal.
41 " sample of Wool, not less than 3 fleeces, a Silver Medal.
42 " Shepherd's Dog, $10 or a Silver Dog Collar.
43 2d best " Morrell's Shepherd.
44 Best pair of Terriers, $10 or a Silver Dog Collar.
Evidence to be furnished of the thorough training of the dogs, otherwise no premium can be awarded.

SWINE.

45 Best Boar, imported, $5 or a Medal.
46 " " native, " "
47 " breeding Sow, imported, $5 or a Medal.
48 " " native, " "
49 " lot of Pigs, not less than 5, under 10 months, $5 or a Medal.

POULTRY.

50 Best lot of Poultry owned by exhibitor, (statement to be furnished and verified by affidavit) $10 or Silver Cup.

51 Best pair of Dorkings, Silver Medal.
52 " " Black Spanish, "
53 " lot of Malays, not less than 3—1 cock and 2 hens, S. Medal.
54 " " Shanghais, 1 cock and 2 hens, Silver Medal.
55 " " Bantams, " " "
56 " " Turkeys, " " "
57 " lot Muscovy Ducks, 1 drake and 2 ducks, "
58 " lot small " " " "
59 " lot of Geese, Silver Medal.

DAIRY.

60 Best lot (quality as well as quantity considered) made from five cows in 30 consecutive days, 25 lbs. of the butter to be exhibited, $15 or a Cream Pitcher.
61 2d best, do. do., Silver Butter Knife.
62 Best 3 firkins butter, not less than 50 lbs. each, $10 or a Cup.
63 " 10 lbs. Butter, made at any time by a girl under 21 years of age, Set Silver Tea Spoons.
64 2d best by a girl under 21 years, Silver Butter Knife.

A statement of the manner of making the butter must accompany each sample.

CHEESE.

65 Best Cheese, over 10 lbs., $5 or a Medal.
66 2d best " Diploma.

SUGAR AND SYRUP.

67 Best 100 lbs. of Muscovado Sugar, an average sample of not less than 15 tons to be shown by affidavit of the competitor and one other person conversant with the facts, $20 or a Silver Goblet.
68 2d best 100 lbs., do. do., $10 or a Silver Cup.
69 Best 100 lbs. made by any process, refined or otherwise, $5 or a Medal.
70 " 20 gallons of Syrup, a fair sample of 20 bbls. (to be shown by affidavit) $10 or a Cup.

The process of manufacturing and clarifying must accompany the samples of sugar and syrup offered.

COFFEE.

71 Best 25 lbs. Coffee, a fair sample of at least 2000 lbs. $15 or a Silver Cup.
72 2d best 25 lbs. Coffee, a fair sample of at least 2000 lbs. $5 or a Silver Medal.

GRAIN, FLOUR AND SEEDS.

73 Best sample of Wheat not less than half bushel $10 or Silver Cup.
74 " 20 ears Indian Corn, $5 or Medal.
75 " bushel of " " "
76 " sample of Oats, not less than half a bushel, $5 or Medal.
77 " " Barley, " " " " "
78 " " White Beans, not less than 1 peck, " "

79 Best 200 lbs. Flour, $10 or a Cup.
80 " sample newly introduced grain, valuable to the farmer, not less than one bushel, Silver Medal.
81 " variety of Garden Seeds, raised on the islands, Silver Medal.

FIELD CROPS.

82 Best crop of Wheat, not less than 2 acres, nor less than 25 bushels per acre, $15 or a Cup.
83 " crop of Indian Corn, not less than 2 acres, nor less than 25 bushels per acre, $10 or a Silver Cup.
84 " crop of Barley, not less than 2 acres, nor less than 25 bushels per acre, $5 or a Medal.
85 " crop of Oats, not less than 2 acres, nor less than 25 bushels per acre, $5 or a Medal.
86 " crop of White Beans, not less than half an acre, $5 or a Medal.
87 " crop of Irish Potatoes, not less than 2 acres, $10 or a Cup.
88 " half acre Tobacco, with account of cultivation, " "
89 " 100 Cigars, a specimen of 10,000, $10 or a Cup.
90 " half acre Broom Corn, " "

Statements must be furnished by applicants for premiums on field crops, 1st. Previous crop, if any, and how manured. 2d. The quantity of manure on the crop, the manner of its application, the quantity and kind of seed used. 3d. A detailed account of the expense of cultivation. 4th. A sample of the product must be presented at the exhibition. 5th. The land must be measured and the Surveyor make an affidavit to his survey.

VEGETABLES.

91 Best and greatest variety of Vegetables, raised by the exhibitor, $10 or a Cup.
92 do. imported Sweet Potatoes, Bermuda or Carolina, $5 or a Silver Medal.
93 do. 10 heads of Kalo, - - - $5 or a Silver Medal.
94 2d do. do. - - - $3 or a Book.
95 Best 12 stalks of Celery, - - - 3 do.
96 do. 12 heads of Cauliflower, - - - 3 do.
97 do. 12 white table Turnips, - - 3 do.
98 do. 12 Carrots, - - - - 3 do.
99 do. 6 table Beets, - - - 3 do.
100 do. 12 Radishes, - - - - 3 do.
101 do. 12 Parsnips, - - - - 3 do.
102 do. 6 heads of Cabbage, - - - 3 do.
103 do. 5 do. Lettuce, - - 3 do.
104 do. 15 Tomatoes, - - - - 3 do.
105 do. bunch double Parsley, - - 3 do.
106 do. 2 Purple Egg Plants, - - - 3 do.
107 do. 12 Onions, (seedings) - - - 3 do.
108 do. 3 Squashes, - - - - 3 do.

109 Largest Squash or Pumpkin, - - - $3 or a Book.
110 Best bushel of Irish Potatoes, - - 3 do.
111 2d do. do. - - - - 2 do.
112 Best do. Sweet Potatoes, - - 3 do.
113 2d do. do. - - - - 2 do.

Discretionary premiums will be awarded on choice garden products not above enumerated.

FRUIT.

114 Best 12 Peaches, - - - - $5 or a Medal.
115 2d 12 do. - - - $3 or a Book.
116 Best dish of Grapes, - - - 5 do.
117 2d do. do. - - 3 do.
118 Best dish of Raisins, - - 3 do.
119 do. 12 Turkey Figs, - - - 5 do.
120 do. 12 of any other variety, - 3 do.
121 do. collection of Water Melons, not less than 5, - - 3 do.
122 do. specimen of any variety, 3 do.
123 do. collection of Musk Melons, 3 do.
124 do. specimen of any variety, 3 do.
125 do. 12 Oranges, - - - 3 do.
126 do. 6 Lemons, - - - - - Silver Medal.
127 do. bunch Bananas, - - 3 do.
128 2d do. do. - - 2 do.
129 Best 6 Mangoes, Downing's Fruit Culture.

Volumes of Downing's and Thomas' Fruit Culture will be awarded by the Judges in their discretion, for choice fruits not enumerated.

The fruit and vegetables exhibited for which premiums are awarded are to be at the disposal of the Society.

No person can receive but a single premium on the same fruit.

Any premiums may be withheld in the direction of the Judges, if the samples exhibited are not worthy of a premium.

FLOWERS.

130 Best collection and greatest variety of flowers, $10 or a Cup.
131 2d do. do. do. do. a Medal.
132 Best Floral Design, - - - Pair of Vases.
133 do. Boquet, - - - - Silver Boquet Holder.
134 For the most beautifully arranged basket of flowers, - - - - do. do.
135 Greatest variety of Roses, - - do. do.

FARM IMPLEMENTS, ETC.

136 Best Plough for stiff sod, - - $5 or a Silver Medal.
137 do. Harrow, - - - - 5 do.
138 do. Cultivator, - - - 5 do.
139 do. Corn Sheller, - - - 5 do.
140 do. Ox Cart, - - - 5 do.
141 do. Ox Yoke, domestic manufacture, 5 do.

142 Best Churn, - - - - $5 or a Silver Medal.
143 do. dozen Brooms, domestic manufacture, 5 do.
144 do. Grain Drill for drilling wheat, etc., 5 do.

DOMESTIC MANUFACTURES.

Articles exhibited to be the manufacture of the 12 months preceding the exhibition.

145 Best machine for cleaning coffee, $10 or a Cup.
146 do. 10 yards Woolen Flannel or woolen cloth of any kind, a Silver Medal.
147 do. 3 straw or grass Hats of native manufacture, $5 or Medal.
148 do. 3 Door Mats, do. do. 3 do.
149 do. 3 Table, Floor or sleeping Mats, do. 5 do.
150 do. pair of cotton knit stockings, - $5 or Diploma.
151 do. Linen Bosom Shirt, - - - 2 do.
152 do. Ornamental Needle Work, - - - - do.
153 do. Ottoman Cover, - - - - do.
154 do. Worked Cushion and Back, - - - do.
155 do. Variety of Worsted work, - - - do.
156 do, Worked Collar and Handkerchief, - - do.
157 do. 2 Lamp Stand Mats, - - - - do.
158 do. Ornamental Shell or Wax Work, - - - do.
159 Best and most beautiful Lamp Shade, - - do.
160 do. Bed Quilt, - - - - - - do.

Discretionary premiums will be awarded for articles not included in the above list.

Medals will also be awarded for articles of mechanical ingenuity, and machinery deemed useful.

In presenting the premium list for the exhibition in 1854, the Board of Managers would call the attention of the public to the numerous additions which have been made to the list of premiums, and which call for a large expenditure. Such changes and additions have been made as the experience of former years has suggested as important, and they trust such as will meet the approbation of exhibitors.

REQUIREMENTS FROM COMPETITORS.

All exhibitors, except ladies, and natives who are members of auxiliary societies, paying their subscription fees into the parent Society, must become members of the Society, in order to take a premium, and must have their articles and animals *entered on the Secretary's Books, not later than* TUESDAY, JUNE 8th, 1854.

All articles for exhibition must be delivered to the committees appointed for the reception and arrangement of articles as early as Wednesday morning, 9 o'clock, A. M., except flowers, which will be received until 10, A. M.

Horses and all other animals must be brought to the ground as early as 10½, A. M.

Persons intending to exhibit are specially requested to forward their entries to the Secretary at the earliest date possible, as it will

greatly facilitate the business of the show and the making of the preliminary arrangements necessary thereto.

Articles or animals removed from the ground before the close of the exhibition, (except by permission of the President) cannot receive a premium though awarded.

Articles and animals will be numbered as they are received, and not labeled as heretofore, and prize cards or flags will be attached to the successful articles or animals immediately after the decision of the Judges.

INSTRUCTIONS FOR THE JUDGES AND SUPERINTENDENTS.

The Judges will meet on the grounds precisely at 11 o'clock, on Wednesday, receive the lists of entries, and then proceed to decide upon the merits of the different articles and animals submitted to them, reference being made to the numbers affixed to each.

A Superintendent will attend each set of Judges, point out the different articles and animals to be examined, and attach prize cards or flags to the successful articles and animals.

The Judges will report not only the animals entitled to premiums, but also those *next in merit* in each class, to meet the contingency of any objection that may be made to the awards. They will also report any animals which in their opinion deserve special commendation.

In all articles on exhibition where competition is not made, the Judges *shall withhold premiums*, unless the article is of such superior merit as to be entitled to the award.

In all cases the *Diploma* of the Society is to be awarded ONLY *as evidence of* SUPERIOR MERIT.

Animals, implements and articles which have heretofore received the first premium of the Society may be allowed to compete, and if adjudged superior to any other on exhibition, will be awarded the *Certificate* of the Society to that effect, or the Diploma of the Society, at the option of the exhibitor.

STANDING COMMITTEES FOR 1854.

1. On SUGAR.—R. W. Wood, J. F. B. Marshall, L. L. Torbert, Wm. A. Aldrich, H. Hackfeld.
2. On PRODUCING SEED FROM THE SUGAR CANE.—E. P. Bond, D. Baldwin, A. B. Bates, T. Cleghorn, J. W. Austin, B. Pitman.
3. On COFFEE.—R. C. Wyllie, B. Pitman, P. Cummings, G. Rhodes, S. Reynolds, T. C. B. Rooke.
4. On WHEAT, OATS, &c.—John T. Gower, J. S. Green, J. S. Emerson, H. J. G. Croswell.
5. On INDIAN CORN.—Wm. Reynolds, W. H. Rice, R. J. Hollingsworth, J. Dudoit, W. Chamberlain.
6. On HORTICULTURE.—G. P. Judd, E. Bailey, E. G. Beckwith, J. Montgomery G. H. Luce.
7. On the VINE.—J. Montgomery, A. Adams, H. M. Whitney, G. D. Gilman, Wm. Ap Jones, T. E. Taylor.
8. On the FIG.—J. S. Emerson, W. H. Rice, J. Pikoi, W. P. Alexander, C. R. Bishop.
9. On FRUITS AND FRUIT TREES.—E. P. Bond, D. Baldwin, A. B. Bates, T. Cleghorn, W. Webster, H. Rhodes.
10. On TREES FOR SHADE, TIMBER, WOOD, &c.—Wm. Miller, Kamehameha, G. P. Judd, Em. Perrin, T. Metcalf.
11. On GARDEN AND OTHER SEEDS.—L. L. Torbert, S. C. Damon, H. M. Whitney, W. B. Rice, D. Adams, P. Manini.
12. On TARO AND GARDEN VEGETABLES.—R. Armstrong, A. Adams, G. L. Kapeau, A. Paki, P. J. Gulick.
13. On a PUBLIC NURSERY.—T. E. Taylor, S. C. Damon, C. C. Harris, S. P. Ford, H. Robinson, John Young, H. T. Fitch.
14. On FLORICULTURE.—E. G. Beckwith, W. Hillebrand, E. Hoffman, T. Cleghorn, R. Armstrong, C. H. Judd.
15. On IRISH POTATOES.—G. D. Gilman, A. Bishop, L. L. Torbert, John Richardson, E. Bond.
16. On the SWEET POTATO.—C. R. Bishop, J. Ladd, Geo. Gilmore, P. Nahaolelua, L. S. Ua, E. Kaahalama.
17. On ONIONS.—E. Bond, L. L. Torbert, B. Pitman, G. Graham, S. Laanui.
18. On ARROW ROOT AND ITS MANUFACTURE.—B. Pitman, C. B. Andrews, Geo. Gilmore, E. Johnson, S. Reynolds.
19. On NEAT CATTLE.—C. G. Hopkins, A. F. Turner, J. Meek, Wm. Sumner, G. S. Kenway, J. Robinson.
20. On HORSES.—John Meek, T. Cummins, J. I. Dowsett, H. S. Howland, F. Manini.
21. On SHEEP.—R. Moffitt, Wm. Webster, T. Cummins, J. O. Dominis, D. Adams.

22. On Swine.—C. B. Andrews, J. Meek, R. Moffitt, R. J. Hollingsworth, A. Paki.
23. On Poultry.—H. M. Whitney, J. Piikoi, J. H. Brown, S. C. Damon, J. S. Emerson, H. G. Crabb.
24. On the Honey Bee.—W. Chamberlain, O. H. Gulick, J. M. Smith, C. R. Bishop, E. Bailey.
25. On Birds, Insects, Worms, &c.— W. Newcomb, Wm. Reynolds, J. S. Emerson, J. S. Green, L. Andrews.
26. On Butter and Cheese.—A. F. Turner, J. S. Emerson, C. B. Andrews, A. Bishop, H. Sea.
27. On Tobacco.—A. Archer, J. R. Opitz, R. Clouston, A. Fornander, J. Montgomery, B. F. Snow, J. Pitman.
28. On Seasons.—T. Coan, E. G. Beckwith, J. S. Green, W. H. Pease, S. G. Dwight, S. Hoffmeyer, H. J. Holdsworth.
29. On Fences.—J. F. B. Marshall, Wm. Miller, R. G. Davis, I. R. Mitchell, Wm. Webster.
30. On the Olona, or Native Hemp.—S. M. Kamakau, J. L. Reeves, Lilikalani, J. Kekaulahao, J. W. E. Maikai.
31. On Manufactures.—J. H. Wood, R. A. S. Wood, C. H. Lewers, J. F. B. Marshall, J. Hardy, Geo. McLean.
32. On Machinery and Agricultural Implements.—D. M. Weston, J. S. Green, R. W. Wood, J. S. Harding, R. Armstrong, W. H. Johnson, J. Hatcher.
33. On Agricultural & Commercial Statistics of the Islands.—S. N. Castle, B. W. Field, W. Goodale, G. D. Gilman, B. Pitman, E. P. Bond, M. C. Monsarrat, A. G. Thurston.
34. On Roads and Inter-Island Navigation.—Wm. Webster, G. M. Robertson, E. P. Bond, J. Montgomery, D. P. Penhallow, B. F. Snow, R. W. Holt, Stephen Bailey.
35. On Labor and the Population of the Islands.—Liholiho, J. M. Marsh, G. M. Robertson, Wm. P. Alexander, T. Coan, J. F. B. Marshall, B. F. Hardy, John Ii.
36. To Receive and Arrange Articles for the Fair of 1854.—W. C. Parke, T. H. Marshall, H. Rhodes, F. L. Hanks, C. S. Bartow, I. Bartlett, T. Spencer, W. K. Snodgrass, J. Ladd, J. R. Pratt, D. N. Flitner.
37. On Salt.—E. W. Clark, C. W. Vincent, T. Mossman, R. Coady, J. C. Pfluger, H. Dimond.
38. On Analysis of the Soil.—W. H. Pease, E. Perkins, W. Newcomb, J. M. Marsh, G. E. Beckwith.

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