

which was read before the society for the improvement and cultivation of pure breeds of stock, bees, fish, etc.; also a communication from the same gentleman:

S. L. CITY, Jan. 9, 1871.

President Woodruff of the Parent Society for the Introduction of Stock, Bees, Fish, Fowls, etc.

Dear Sir:

I have received an excellent work of ninety odd pages, from Seth Green, Esq., on trout culture. Chapter 1 treats on "fish culture and trout breeding," etc. Chapter 2 "trout ponds, location—laying out, and shape of ponds," etc. Chapter 3, "hatching house, troughs," etc. Chapter 4, "Treatment of eggs, placing them in troughs," etc. Chapter 5, "young trout, their appearance, food," etc. Mr. Green says that half a teacupful of bonny clabber or thickened milk is sufficient food at one feeding for several thousands of young trout forty odd days old. Chapter 6, "adult trout," etc. Chapter 7, "taking eggs and all about spawning," etc. Chapter 8, "stocking ponds and streams," "will it pay," "to those starting in business," etc. Appendix, "transportation of live fish," etc. I have examined the treatise and consider it just the kind of work for every person engaged in this most important branch of industry, viz: the introduction and cultivation of fish. Messrs. Tillotson of New York have kindly sent me another work, entitled "A Complete Treatise on Artificial Fish-breeding; Translated and Edited by W. H. Fry. Illustrated with Engravings." This is a book of 183 pages, and I think is not so well adapted to our wants as Mr. Green's work. Mr. James Dwyer the enterprising Railroad Book, Paper, and Notion Dealer, of this city will, in a few days, have copies of Mr. Green's work for sale at one dollar each. At Logan we organized a fish committee of five go-ahead persons in Bp. W. B. Preston, Thos. Jones, Enoch Lewis, Thomas Tarbett and Benj. Cluff; at Franklin we organized another committee of three thorough men, viz.: Alex. Stalker, Andrew Morrison and William Woodward. Other committees in that county, also in Box Elder and Weber counties will soon be set on foot. I will append to this Mr. Green's "General Circular Directions" which accompanied his letter to me. In his letter he says that eggs cannot be sent by him to Utah by express, but will come safely in charge of an attendant.

Let me say again to fish committees and to fish farmers; obtain the above work and the agricultural reports for 1868, then you will be in possession of sufficient data to commence a successful business. I would respectfully recommend that all articles that have appeared and may hereafter appear in the papers treating upon this and kindred subjects, be cut out by fish committees and the bishops and be preserved for future reference.

Very respectfully, yours, &c.

A. MILTON MUSSER,

Chairman of Fish Committee.

RABBIT CULTURE.

SALT LAKE CITY,

January 9th, 1870.

Pres. W. Woodruff:—Dear Sir:—I would like the members of the Society over which you preside and all others interested, to learn some facts in relation to rabbit culture, which I firmly believe may be made very profitable to almost any one having a spare rod or two of ground for a rabbit garden. The following data I obtained from Dr. David V. Lamoreaux, a successful rabbit culturist, at Logan, Cache county. Some time ago he obtained two does and a buck of the "prick eared" variety. In seven months he had from this beginning eighty-four rabbits. They are very prolific, each doe having offspring from three to nine in number every month of the year. She carries her young thirty days. The average monthly growth of the young is about one pound for the first seven months; less thereafter. At four months of age they multiply again: one buck to from eight to twelve does. For successful breeding the bucks should not be over two years old. The doe always makes her nest in a dark place some two weeks before giving birth to her offspring. Three or four days before this period the previous litter must be taken away, so as not to interfere with the new crop, which must not be handled for the first nine or ten days. For fattening purposes the males should be emasculated, (the process is as easy and

simple as with lambs). In this condition they grow larger, and make sweeter meat and are less combative. They must always be handled by the ears; otherwise you kill them very easily. They will eat most all kinds of vegetables, also weeds and corn fodder, hay, sheaf-oats, corn, wheat, milk, apple and potato peelings, etc., etc. Artichokes make splendid spring food; surplus apple limbs, willows and some pine bark may be thrown to them. Colonel McKenzie tells me that they are very fond of dandelion, which grows so spontaneously everywhere. They must have fresh water regularly, and are fond of snow. The pen in which the Dr. propagates and keeps his rabbits, is made of laths, nailed to a frame, with a small space left between them, the whole covering say half a square rod of ground. The place is covered and furnished with several apartments, with small gates opening into them. They must be kept dry; and Colonel McKenzie says secure from the depredations of cats. The skins of the Doctor's kind are very beautifully colored black and white; two or three large ones would make a very nice cape for a lady or miss. In view of the easy culture and the consequent cheapness of rabbit meat, I beg respectfully to recommend that their introduction and culture be placed in the hands of the committee on fowls and swine. Dr. Lamoreaux sells rabbits of suitable age for three dollars per pair. A candle box is a good thing for them to make their nest in.

Respectfully,

A. MILTON MUSSER.

To the Parent Society for the Improvement of Stock, etc.

The following is the report of the Chairman of the committee on Horses:

To the Deseret Fine Stock and Bee Association:

REPORT OF THE COMMITTEE ON THE HORSE.

The history of the horse, intimately interwoven as it is with that of man, can hardly fail to interest the most careless student. From the earliest ages he has been man's faithful ally and willing slave. He not only moves all the machinery of the field and camp, but shares with his rider all the fatigue and danger of battle. In peace, how various and invaluable are his services; every branch of industry owes much to his patient toil, he plows the soil, sows the seed, reaps the harvest, and transports it to the distant market from year to year, and from youth to old age he toils unceasingly for his master, in the cart, the mill, the freight wagon or the mail coach. Not only has he relieved our wants, and ministered to our comfort, but he shares in our pleasures and amusements; he not only works steadily and patiently in the loaded wagon, but in the race becomes as excited as his master and appears to rejoice in the pleasures of the chase. In gracefulness of motion, elegance of form, and dignity of carriage, he is superior to every other quadruped, attached to his master and obedient to his will, he bears him without question or murmur, through sunshine and storm, over mountains and through rivers, carries him with unfaltering nerves into the thickest of the battle, and, if repulsed, his speed and endurance bid defiance to pursuit, hence, no animal has received the same care and attention and training as the horse, and none so worthy.

To be successful in the breeding of the horse, we must not only continue for several generations, but it must be undertaken by a people fixed in their habits, devoted to agriculture, and should be conversant with the great physical laws that must be carefully observed in crossing breeds of animals in order to insure success. Every country has adopted the breeds most suited to their wants. In America it has been found necessary to adopt different breeds in different localities, hence we see Kentucky, Virginia and the Southern States with the English thoroughbreds, being best suited for the saddle. Kentucky imports her draft and carriage horses from Ohio. The Northern States have adopted the "Morgan," which is a thick, heavy set, hearty horse, good roadsters and best suited to the climate. New York State imported "Messengers," which, crossed with the "Thoroughbred," produced the "Hamiltonians," the renowned trotters and fine carriage and buggy horses. The West has not adhered to any particular breeds, but in Ohio and Illinois they have imported "Normandy" horses,

which take the preference to cross from; they are healthy and hearty, good walkers, and as roadsters, will go six (6) miles an hour. California has spent more money than any two States in importing horses, and with much loss; some good horses have been raised there.

With the history of all these States before us, we come to the following conclusions: To recommend the importation of the "Thoroughbred" for saddle horses, the "Hamiltonian" and "Messenger" for buggy and carriage horses, and the half-breed "Normandy," as the best suited to improve our stock on hand. The half-breed stands sixteen hands high, weighs from 1200 to 1600, and will travel eight miles an hour gait. The reason we give for breeding to large horses, is this; our present horses are small and almost worthless. In a carriage with a large dashboard, the driver is frequently under the necessity of standing up or stretching his neck to see his team. By breeding to large horses, first we get size and bone, the next cross can be for blood, speed and symmetrical form. We deem it expedient to form co-operative herds, or stock associations, as being the cheapest and best means in our present situation. By forming stock associations, we can send for horses, get our herds ready for spring and begin the improvement of our stock.

It is not in our power to make a calculation how much we can be benefited, or how much money can be made by a right step in the right direction. The colts which are lost every year will amply pay all the expenses of herding; the loss in getting scrubs or none at all, is to be considered. We also know from experience, that the value of our stock will be doubled every year. Horse raising is a lucrative business in Utah; surrounded as we are with plenty of good grass, a genial climate, winters just long enough to feed the colts to make them gentle, always a market for a good horse and ready cash. Suppose we reverse things now, and instead of importing we export fifty thousand dollars' worth of horses a year, the Territory would be gainer instead of loser; and a greater amount of labor would be performed with a better class of horses, saying nothing of the pleasure of driving a good or a fast horse. Follow a farmer with a good team, and you will find him with grain to sell, go to the store you find his credit good, plenty of wheat at home and, perchance, does not work as hard as his neighbor with a poorer team; what he does he can do well, he plows deep. We further appeal to and recommend all the Bishops and leading men of the Territory to form like associations unto this. Appoint committees whose duties it shall be to take the best means to import and propagate good stock in each settlement. Also appoint a horse committee, whose duty it shall be to examine all stallions, condemn the worthless, and give certificate of approval to the good, which certificate shall be kept with the horse; also to condemn the worthless scrubs now running on the range. We think there is no time to be lost, and there is no better time than now. The winter evenings being a good time to meet, form companies, discuss these stock subjects, devise the best means to get what you want; time thus spent, we warrant, will never be regretted. Any information wanted by branch committees will be cheerfully given by us.

Hoping this will meet with your approval, and that we will be able to report further on the subject, we remain your humble servants,

The Horse Committee,

H. J. FAUST,

Chairman.

Salt Lake City, Jan. 9th, 1871.

SCIPIO, Millard Co.,

January 5th, 1871.

Editor Deseret News:—Dear Brother: Knowing the interest you take in the prosperity of all the settlements of the Saints, I pen you an item or two from this place.

Our Co-operative Mercantile Institution commenced business in April 1869, with the small capital of \$585, in five dollar shares; and in the first six months paid a dividend of eighty per cent. In the next six months a dividend of 46½ per cent was paid, the capital having increased to \$1085. In the next six months the capital increased to \$1240, and a dividend of 40 per cent was made. These big dividends have not been made by charging high prices for goods, for the object of Bishop Thompson (the President) and the directors has been *cheap goods*; but it is by strict

economy and good management that these results have been reached.

There are two day and one night schools in operation here, which affords an opportunity for the education of our children,—a subject that has not hitherto received the attention in this place which its importance demands and which it has received in older and more fortunate settlements. Our settlement has suffered heavy losses from Indians and grasshoppers in the past four years, but the prospect looks bright for the future, and the people generally feel well, as the prospect of the early settlement of the Sevier Valley promises protection from Indians, and it is generally supposed that there are but few grasshopper eggs in the valley, at least near to our fields.

The winter has been unusually severe here, though we have had but little snow.

Respectfully yours,

A CITIZEN.

"NON-EXPLOSIVE" FLUIDS.

SALT LAKE CITY,

Jan. 10, 1871.

Editor Deseret News:—So much having been said of late in our city about "non-explosive" fluids, allow me through your columns to state a few facts which may set the matter in a more correct light before the general reader.

It is, I believe, a well-established principle among chemists that such a substance as a "non-explosive" fluid does not exist. Water itself, under improper control is explosive. Every intelligent person knows, or ought to know, that petroleum is a most inflammable and explosive substance; and all of its products, under whatever name they luxuriate, whether "Coal oil," "Kerosene," "Astral oil," "Danforth fluid," or "Gasoline," partake in a greater or lesser degree of its explosive qualities.

Explosiveness, of itself, it must be apparent, is no rational argument against the use of petroleum or its products as an illuminating fluid, or in any other of the thousand purposes for which this wonderful agent has been utilized. As well might we fear to use the mountain stream because water has produced explosion. Throughout the realms of nature and of art, the danger is not in the use, but in the misuse of things.

Petroleum as an artificial light, has already effected a great revolution in the world. The prospects are that its products will effect changes still more remarkable. Among the significant indications of progress in the world of light is the substitution of gasoline for coal gas in the large cities, at a cost of about one-fifth of the former, with a light equaling coal gas in brilliancy, and other important considerations showing in favor of the gasoline.

The utilization of this same fluid for cooking and heating purposes seems on the eve, also, of making telling inroads upon the time-honored use of wood and coal. Should the eminently practical direction of the inventive genius of this electric age really demonstrate the propriety of changing our wood and coal burning stoves for gasoline burners, I am of the opinion that no part of our country would more cordially than Utah hail the era of gasoline—which is soberly regarded by many as the precursor to the utilization of electricity itself for the household benefit of mankind. Certainly none would more largely than her people partake of the advantages from the immense economy claimed for it.

Shall we blockade the march of progress by a fanatical suspicion of explosion? or would it not be infinitely more proper and conducive to our interests to look to the use of these invaluable auxiliaries to our comfort in such a manner as shall render them safe and beyond ordinary possibility of explosion?

Experience, as well as science, inevitably point to the disuse of glass in the consumption of petroleum or its products. It is believed that one-half the accidents reported under the head of coal oil explosions have resulted from the breaking of glass lamps. Hence, it has now come to be an axiom, that "glass lamps used in burning coal oil are simply infernal machines."

Should we entertain fear of explosion, from the use of any of these substances, when they are encased in metal vessels so constructed as to prevent the possibility of explosion? Then we may talk of "non-explosive" lamps, or "non-explosive" stoves, etc.; but to talk of a "non-explosive" fluid is simply an absurdity.

SAFETY VALVE.