



EXTIRPATION OF SPECIES.

Prof. Alfred Newton, in an address before the British Association, thus alludes to the wholesale destruction of certain animals, and the inevitable results:

The indiscriminate destruction of animals which, in one way or another, is now going on, must sooner or later lead to the extirpation of many of those which minister to our wants, whether of comfort or luxury. The fur-bearing creatures will speedily, if they do not already, require some protection to be generally accorded to them; and that such protection can be effectually given is evident if we take the trouble of enquiring as to the steps taken by the Russian local authorities in Alaska, and now, I believe, continued by those of the United States, for limiting the slaughter of the sea-otter and fur-seals of the adjacent islands to particular seasons. No one can suppose that even with the assistance we get from Siberia, our supply of ivory will continue what it now is when the interior of Africa is pacified and settled, as we can hardly doubt that it one day will be; and unless we can find some substitute for that useful substance before that day comes, it would be only prudent to do something to check the wasteful destruction of elephants. Many people may think that the continent of Africa is too vast, and its animal life too luxuriant, for the efforts of man materially to affect it. If we enquire, however, we shall find that this is not the case, and that there is an enormous tract of country, extending far beyond our colonies and the territories of the neighboring republics, from which most of the larger mammals have already disappeared. There is good reason to believe that at least one species has become extinct within the last twenty-five years or thereabouts; and though I do not mean to say that this species, the true zebra, had any economic value, yet its fate is an indication of what will befall its fellows; while to the zoologist its extirpation is a matter of moment, being probably the first case of total extinction of a large terrestrial mammal since the remote days when the *Megaceros hibernicus* disappeared.

Time would fail me if I attempted to go into particulars with regard to the marine *Mammalia*. It is notorious that various members of the orders *Sirenia*, *Cetacea*, and *Pinnipedia*, have recently dwindled in numbers or altogether vanished from the earth. The manatee and dugong have been recklessly killed off from hundreds of localities where but a century or so since they abounded; and with them the stores of valuable oil that they furnish have been lost. That very remarkable Sirenian, the huge *Rhytina gigas* has become utterly extinct. The greed of whalers is believed to have had the same effect on a Cetacean (the *Balaena bisulcata*) which was once the cause of a flourishing industry on the coasts of France and Spain. The same greed has almost exterminated the right-whale of the northern seas, and is fast accomplishing the same end in the case of seals all over the world. You are probably aware that an Act of Parliament, passed in the session of 1875, was intended to put some check upon those bloody massacres that annually take place on the floating ice of the North Atlantic, to which these creatures resort at the time of bringing forth their young, when

"Sires, mothers, children in one carnage lie."

But, whether through official indifference, or what, I know not, the treaties with foreign nations authorized by that Act were not completed, and last spring, at the solicitation of certain Aberdeen or Peterhead shipowners, the Board of Trade allowed "one year more" of wholesale slaughter. Whatever other nations might like to do, our hands at least should have been unstained. It is admitted that in certain manufactures—that of jute, for instance—animal oil is absolutely necessary. It is easy to see that before long there will be very little animal oil forthcoming.

SCIENCE IN AMERICA.

"It must be acknowledged that in few of the civilized nations of our times have the higher sciences made less progress than in the United States." So wrote that most acute observer of American institutions, De Tocqueville, thirty years ago. The statement was certainly a true one then, and we fear that it is true now. Not that Americans are indifferent to the natural sciences, for we feel their attractive power. Both teachers and newspapers have diffused a knowledge of these sciences far and wide, and we have many students of them. But the American brain is far more anxious to invent than to discover; to apply to some labor-saving process the laws of nature which scientific men of the Old World

have patiently discovered. Fulton, Morse, McCormick, Howe, and men of that class are our scientific heroes, and they have brought wealth to our land, and carried our national fame to the ends of the civilized earth. Let such men have all the honor which they deserve. They are men of genius; but their genius, though useful and fruitful to the nation, is not of the highest kind. The inventor is not of necessity a discoverer. He finds out no new property in matter, he proclaims no new law in physics which was before unknown. He builds, but it is with materials which other men have quarried out with much toil. If Fulton and Morse had never been born, we should have had by this time both the steam-boat and the telegraph. Greater men than they had found out and proclaimed the properties of steam and electricity, and the application of these to the useful arts was inevitable as soon as there was a public demand. In 1737 Jonathan Hall, of London, secured a patent for propelling vessels by steam, and the professors in a German University had constructed a small private telegraph before Morse had announced the result of his labors.

The barrier to prolonged scientific pursuits is partly our national character. We want results, and are impatient if we do not get them soon. We boast that we are a practical people, and we do not think much of theories which do not, after a while, point the way to fortune. "Will it pay?"—that's the question. "What do you waste your time for in trying to find a new star or a rare bug? Better invent a cooking-stove which will sell, than spend five years in trying to discover a new law in optics. Study long and hard, but let the end of all your study be—to invent something which you can get a patent-right for, and which will bring you sudden wealth." Of course, we respect Newton, and Galileo, and Galvani. But had these men been American, we question if the first would have spent a long time in studying the colors of a soap-bubble so as to measure its thickness; or the second would have watched the motion of a hanging lamp; or the third, would have wasted precious time in studying the twitchings of the legs of a bull-frog just deceased. Such studies, we firmly assert, do not pay.

We begin to find out that we are mistaken. Such studies do pay—ten thousand fold. Such men may die poor, but their lives are not in vain. Those who love truth for its own sake, who come to study of nature through love, and not through selfish desires after wealth and fame, are the world's truest benefactors. Let us honor them while they live. Let us cheer them on in their work, and when they die, to their memories let us rear schools and colleges more durable than monumental marble.—*Methodist*.

A PROPAGATING SECRET.

Under this head the London *Gardener's Chronicle* says:

It will be remembered that a month or two ago we alluded to an alleged extraordinary secret for propagating trees and grafting roses, whereby much time could be saved, offered for a small sum by an Austrian nurseryman. This gentleman has since communicated an article on the subject to the *Wiener Gartenfreund*. Briefly, his new method is as follows: Cuttings of shrubs and trees are taken off at the beginning of July, from 6 in. to 12 in. long, according to the kind. The leaves are removed from the lower portion which is to enter the ground, but those which will come above ground are left. Beds are prepared for them in the open air by thorough digging and levelling, and afterwards applying a superficial layer, about 2 in. thick, of rotten manure from a spent hot-bed. The cuttings are then stuck in about 2 in. apart and in a somewhat oblique direction. Each bed when filled is surrounded with a lath fence, so that shade may be given when the sun is very hot, and the cuttings are well watered with a rose-spouted can. This completes the operation. The only further care necessary is a sprinkling overhead three or four times a day during the first week, if the weather be very hot, and once a day afterwards. In the course of five or six weeks, treated in the manner indicated, the cuttings of most plants will have formed a callus, and further shading will be unnecessary. Late in the autumn a layer of rough manure, 2 in. or 3 in. thick, is spread over for winter protection. It also serves as manure when the cuttings start growing in the spring, and cuttings treated thus make extraordinary progress,—forming plants equal to two-year old plants from winter or spring cuttings. Very few, it is asserted, fail. The new method of grafting roses is the insertion of growing eyes early in spring, instead of dormant eyes in the summer. They are inserted in the main stem one on each side, to form symmetrical heads. These make, it is said, as much growth the first season as the dormant eyes the second season.

DISTRIBUTION OF ANIMALS BY SWIMMING.—Very few mammals can swim over any consi-

derable extent of sea, although many can swim well for short distances. The jaguar traverses the widest streams in South America, and the bear and bison cross the Mississippi, and there can be no doubt that they could swim over equal widths of salt-water, and if accidentally carried out to sea, might sometimes succeed in reaching islands many miles distant. Contrary to the common notion, pigs can swim remarkably well. Sir Charles Lyell tells us in his "Principles of Geology" that during the floods in Scotland in 1829 some pigs only six months old that were carried out to sea swam five miles and got on shore again. He also states, on the authority of the late Edward Forbes, that a pig jumped overboard to escape from a terrier in the Grecian Archipelago, and swam safely to shore, many miles distant. These facts render it probable that wild pigs, from their greater strength and activity, might under favorable circumstances cross arms of the sea twenty or thirty miles wide, and there are facts in the distribution of this tribe of animals which seem to indicate that they have sometimes done so. Deer take boldly to the water, and can swim considerable distances, but we have no evidence to show how long they could live at sea or how many miles they could traverse. Squirrels, rats, and lemmings often migrate from Northern countries in bands of thousands and hundreds of thousands, and pass over rivers, lakes, and even arms of the sea, but they generally perish in the salt-water. Admitting, however, the powers of most mammals to swim considerable distances, we have no reason to believe that any of them could traverse without help straits of upward of twenty miles in width, while in most cases a channel of half that distance would prove an effectual barrier.—*S. S. Conant, in Harper's Magazine for March*.

HYGIENIC CANDLE.—The use of medicated candles and lamps is not new, several attempts having already been patented. The latest formula for making hygienic candles includes the use of antiseptics for destroying the morbid germs of disease floating in the air. Benzoic acid, phenic acid, thymotic acid, and other antiseptics, are added to the materials of the candle, in proportion of ten parts of acid to one hundred of the fatty substances, paraffine, or wax used in making candles. These acids are volatilized in the burning candle, and are thus set free to mingle in the air, and restore it to a safe and healthy condition. Such candles are reported to give a good light, to be free from objectionable odor, and to answer a good purpose as antiseptic agents.

INSTANTANEOUS FIRE-LIGHTERS.—One of the latest proposals has been to light fires by electricity, so that the fires in a house being laid ready over-night, no one would need to stir out of bed till every room was comfortably heated. Even with electricity, however, fire-lighters of some sort would be indispensable, and we observe that a method has recently been invented for manufacturing these out of a cheap and easily-procured material. Turf or peat is taken, and cut into cakes about three inches long by three inches broad and about one inch in thickness. It is then dipped, first into mineral or vegetable oil, and then into pitch, tar, or resin; and the result, we may be sure, is a highly inflammable fire-lighter.

—We have often wondered why our houses, particularly in cities and large villages, could not be supplied with heat, as they are with light and water. We have companies who pipe our streets and conduct to our houses the gas and water we need, so that a turn of the faucet gives us the required amount. Could we thus heat our halls, our parlors, or our sleeping-rooms, the only desideratum for making our houses complete would be furnished. And this desideratum it seems is now to be provided. Mr. Holley, the inventor of the water-works bearing his name, has formed a company for heating the village of Lockport, N. Y., with steam. Large boilers are provided for the different districts, from which pipes, laid in the main streets below the reach of frost, radiate to the houses of the fortunate ones who, by this means, will be able to dispense with furnaces and stoves.

DOMESTIC.

WARMED-OVER POTATOES.—Because only a few potatoes were left from dinner, that is no reason why they should be thrown in the cow's pail. Peel them if not done already, and bake them over in the oven. Or slice them and warm them with bread—which is even better than potatoes warmed alone. This is the way. Put bread crumbs soaking in milk upon the stove. When hot add the sliced or chopped potatoes with salt, and stir all well together till thoroughly heated or cooked. Then season as you wish with a little butter or cream.

VIENNA COFFEE.—Leach or filter the coffee through a French filterer or any of the many coffee-pots that filter instead of boiling the coffee. Allow one table spoonful of ground

coffee to each person and "one extra for the pot." Put one quart of cream into a milk boiler, or, if you have none, into a pitcher, and set the pitcher in a pail of boiling water. Put it where the water will keep boiling. Beat the white of an egg to a froth, then add to the egg three tablespoonfuls of cold milk. Mix the egg and cold milk thoroughly together. When hot, remove the cream from the fire, and add the egg and cold milk. Stir it all together briskly for a minute or two, and then serve.

THICKENING.—It makes a deal of difference with your cooking, how you stir up sauce thickening for gravy or pudding. You use flour or starch of some kind, mixed with water or milk. Wet the flour with very little water or milk, and beat thoroughly together till every lump disappears, then thin with more water or milk and beat again. Let the milk or whatever is to be thickened, be actually boiling, and stir as fast as possible while you slowly add the thickening, beating rapidly for two or three minutes. This makes the gravy or custard wonderfully light and foamy, especially if there are beaten eggs in the compound. If you try to mix a little flour with a good deal of water, you will have a long hard siege in getting out the lumps. Salt should be added before the thickening.

THE USE OF DRY YEAST.—Some excellent kinds of dry yeast may be purchased at our groceries. I said once that these cakes were so slow in rising if mixed at once with the sponge that they were chiefly useful for raising new yeast. Not long afterwards I found that this slowness to rise (or to start to rise) gave them great value for summer use, when it seemed desirable, as it usually does, to do the baking early in the morning. Bakers' yeast, or any kind of quick, soft yeast, is so apt to sour before morning on a hot summer night, that a slower kind of yeast is often preferable. I have found it perfectly safe to mix my bread sponge before dark in summer, stirring in the yeast-cake as soon as it was soaked soft in a little warm water, and have never had bread mixed with this yeast become sour during the night or while waiting for me in the morning. I am confident that I know sour dough when I smell it or taste it, as many housekeepers certainly do not. Else why do they make sour bread week after week, year in and year out? Or why do they persist in regularly putting in soda as a necessary step in the process of bread-making? Those who make dry-yeast for themselves should be very careful not to let it get sour while drying. It should be dried rapidly in a good, cool, drying wind. It is unsafe to dry it in the sunshine or by the stove, lest it may sour from excess of heat. It should be mixed with a good deal of cornmeal, and then made into small thin cakes, or—better still, I think—dropped in small crumbs upon a board to dry. Any kind of good, lively, soft yeast may be mixed with meal and make dry yeast. In winter it is best to put the dry yeast, soaked in warm water, rising in a bowl of flour and warm water batter three hours before setting the sponge.—*American Agriculturist*.

A CHEAP CARPET.—We lately heard of a very cheap and, it seems to us, a feasible way of carpeting rooms which are not in constant use. First make a good paste, and cover the floor with some strong light-colored plain paper—cheap wrapping-paper is as good as any, only it must be soft and not dark enough to show through. Let it become perfectly dry, and see that there are no wrinkles or uneven spots. Select at some wall-paper store rich-colored paper, not very light—and it need not be very expensive, but should be firm and strong. Be particular about the designs—look for such as would be pretty in a real carpet. Measure the room, and cut the paper in length to correspond. Put a good coat of paste over the whole breadth, and also over the floor, or rather the lining that has been pasted down over the floor; lay it down carefully, unrolling and smoothing with a soft, clean white cloth, pressing it all over on the floor, and take the same care to prevent the air getting under to form blisters as a paper-hanger would in covering the wall. It would be safer and doubtless more satisfactory to get a paper-hanger to take charge of the job. When the floor is all covered, "size" and then varnish the paper. Use dark glue for sizing, and furniture varnish, as the dark shade they give will make the paper look richer. When all is finished and the furniture in place we can imagine this might make a very pretty carpet, and in a room not liable to be used roughly can believe it might last a long time. If there is proper care in moving furniture when sweeping and rugs are laid before the bed, washstand and bureau, we think a sensible young lady could make this paper carpet last quite as long as many of the ingrain carpets now in use. Some of the dark, rich paper we often see in the stores with exquisite flowers, vines, and various beautiful designs, and with broad, handsome borders, would make an elegant carpet, at half the cost of an ingrain.—*Christian Union*.