

The Autumn Woods.

AND THE HOUSEHOLD ADORNMENTS WHICH THEY PROVIDE—PREPARING FERNS AND MOSSES.

(Philadelphia Times.)

Ferns become every year more popular for purposes of household decoration. Growing or cut, freshly gathered or pressed, the uses to which they are applied are numberless. It is a safe plan to gather them whenever you can get them, but those who can choose their time to do so usually prefer August or early September, since at this time the ferns are in full maturity and have not yet begun to fade.

In going fern hunting it is wise to take a large book, such as an atlas or a music portfolio, along in which to lay the more delicate specimens as soon as they are gathered; the commoner varieties—such as the ordinary bracken bush, the evergreen fern—may be easily taken home to be pressed, by wrapping them in newspaper with a wet fold around the stems to keep them from wilting. Those which are to be dug up, root and all, for transplanting should be placed as carefully as possible in a basket.

At the close of every excursion the ferns which are to be pressed should without loss of time be transferred to the drying paper. Seated at a convenient table the collector begins her work. her pile of ferns at one side of her and her paper at another. Plenty of paper and two flat, smooth boards are the materials required. Books on the subject advise about blotting paper, but strong, soft newspapers, such as the *Times* for instance, make an excellent substitute at far less cost. Number one board is laid down; on this several sheets of paper—the more the better if paper is plentiful—and on them the fern is laid out as nearly as possible in the natural position, any twisting into shapes which the fronds would not have assumed in life being avoided. Over it a single sheet of paper is laid, and while with the right hand the plant is being spread out, with the left the paper is being simultaneously smoothed over it, immediately a few more sheets are laid over it and the process repeated with additional specimens until the pile is sufficiently high; then it is topped with the second board and the bundle deposited with a forty or fifty pound weight on the top of all. Bricks make good weights, and they can be so distributed as to make the pressure bear equally on all parts at once; but any weight—a large stone, for instance—will do very well; or you may put the boards under your trunk. If a great many ferns are to be dried, another set of boards and papers may be used, but one is sufficient for quite a number. Next day the collector must "change her papers." The pile is reversed, and the top board laid down on the table, with a sheet or two of dry paper on the top of it. Then the half-limp, flattened fern is carefully transferred to it, and the process repeated until the whole of yesterday's gatherings are once more in dry sheets, and the weights on top of them again. The damp paper is then laid out in the sun or suspended on a cord in the kitchen or other warm place to dry, and in a short time is ready for use. How often the changing of papers must be repeated, depends upon the number of sheets which are interposed between each plant, the state of the weather, the dryness of the room, or the thickness of the fern leaves themselves; but, as a rule, half a dozen times are sufficient, and, if need be, the last two or three times may have an interval of two or even three days between them. If the plants make the paper bulge out, a sheet or two of stout pasteboard interposed here and there will smooth down their asperities and secure better dried specimens. In any case, a little patience and neat-handedness are necessary to secure choice specimens, and the ferns should not be taken out of press until sure that they are well dried. The best test of their being thoroughly dry is to gently bend back a little bit of the frond. If it is inflexible, then it is better to give it another turn of the drying press. If, on the contrary, it breaks, all the sap has been extracted from it by the combined pressure of the stones and the absorbing power of the paper on either side or the specimen. Then transfer them to a large book and keep them there until ready to use them. Small ferns may be pressed between the leaves of a book by tying a string around the volume to keep it tightly shut, but it is important in such case that the ferns should be dry, and the book must be opened and examined from day to day to avoid injury both to the volume and to the ferns.

As already intimated, any one with a large

supply of pressed ferns has an almost limitless fund upon which to draw for household decoration. Window transparencies and fire screens are made by framing the ferns, artistically grouped, between two sheets of plate-glass. The side-lights to a hall door may be prettily ornamented in the same way, only for this purpose, in order to obstruct the view, it is well to fasten the fern on fine white net. Bright hued flowers, such as pansies, morning glories, scarlet sage, etc., add much to the beauty of such transparencies and may be successfully dried between sheets of cotton wadding placed between wooden boards.

A cluster of ferns pinned on a lace curtain where it falls apart has a very happy effect, and we have seen pretty window cornices made of a garland of ferns and autumn leaves. The maiden-hair fern looks extremely well arranged in a small basket, with a few dried bits of crimson cock's comb or bachelor's buttons. Indeed, the uses to which they may be applied are limited only by the taste and skill of the decorator.

When a fernery is contemplated the ferns should be carefully dug up and transplanted in soil as nearly as possible like that in which they originally grow.

As a rule, ferns require abundant moisture and cool shade, and the exercise of a little ingenuity will soon provide these requirements for even a varied collection. With the help of a few pieces of furnace slag or other fantastic material, a rockery can be erected in the driest city back yard. Sand—not sea, but river sand—should be first strewn over this, and then woods earth should be packed into every crevice where the ferns are to grow.

The newest fern cases have ventilators in the top of the glass, but it is an open question whether these are an advantage in a furnace-heated room.

A very pretty fernery may be made of an old tin tray. Paint it first with waterproof paint, then make a foundation of gravel, charcoal and cinders and some sand, not too much, however. Over this put your woods earth and plant the ferns with sheets of moss, carefully transplanted from the place where the ferns grew, covering the roots. Keep well watered, and you will have a thing of beauty all winter, constantly developing new beauties as tiny ferns and wood plants spring up from the moss.

For decorative purposes moss is scarcely second to ferns, or even flowers. In England it is much used for table decoration, and is gathered in summer and dried for winter use. It is a mistake to think that because moss is green it is of one colour, you will find it of every hue—bronze and emerald, shining, golden and dark purple green. The best way to collect it for decoration is to pull it in large tufts, which should be well shaken after reaching home and spread lightly on newspapers for a day or two, and then again thoroughly shaken, to free them from loose bits and from insects. To keep it for the winter the sprays should be dipped in water, dabbed dry on a cloth, laid flat between two sheets of brown paper and immediately ironed until quite dry. The irons should be of the heat required to smooth linen, but do not prolong the process too much or the moss will become brittle. This process answers for the coarse mosses; more delicate ones should not be ironed, and the "maiden hair" moss should not be placed in water, or the golden extinguishers may wash off. Small, naturally mossy twigs—ivy, oak leaves, acorns, lichens—by occasionally being put out to be refreshed by rain, can be made to last for some time. The last need an occasional rain soaking, as they become brittle and powdery when too dry. The little pypsy kettles that were so fashionable some years ago may be made into pretty centre-pieces by covering sticks and kettle also with moss, as follows: Hold one of the sticks in the left hand, take a tuft of moss sufficient large to wrap around it in the right hand and fold the moss around and over the end of the stick; pass a long piece of fine gardening wire round it, securing the end firmly and pulling it in tight, so that the moss conceals it; wind it round once more and then take a second tuft; let the end neatly overlap the first, and secure it in the same way; continue till the stick is covered, keeping the moss as evenly and tightly rolled as possible. If too shaggy trim it with the scissors. Secure the end of the wire when finished, and if tightly done all will remain firm. The handle of the kettle should be done in the same way before doing the kettle. In covering the latter the upper edge of the tufts should be turned inside, under the tin for holding the flowers, and the first wire tied around close under the top. A very few

flowers, arranged in wet sand, will answer for filling the tin. Flower pots may be covered in the same way; and flat strawberry baskets, thus concealed, and lined with white paper, make very pretty fruit dishes. A plateau of moss for holding dessert dishes is also pretty. A board of the desired size and shape is requisite; the edges may be cut out for the dishes to fit into, or they may stand on it. The moss should be made as smooth and even as possible, and may be of only one of various kinds. The common feather-moss is perhaps the best. If liked, a border of gray lichen may surround it, and outside this a second of small leaves, trailing or ground ivy. Borders of ferns and moss can be made for dishes, and wreaths of periwinkle runners, ivy, holly bright autumn leaves. Ferns can be ironed like the moss and will preserve their colour, but the safest plan is to dry them as directed. Circles or stripes of thin cardboard can be covered with leaves and ferns for surrounding dishes, and single ferns arranged in a pattern of the cloth. Infinite variety can be made by giving time and thought to the matter.

Porpoise-Shooting.

Porpoise-shooting affords to the Indians of the Passamaquoddy tribe their principal means of support. It is practiced at all seasons of the year, but the fish killed in the Winter are the fattest, and give the largest quantities of oil. The largest-size porpoises measure about seven feet in length, about the girth five feet, weight 300 pounds and upward, and yield from six to seven gallons of oil. The blubber is about one and one-half inches thick in Summer, and two inches thick in Winter, at which time the creature is in its best condition. The blubber from a large porpoise weighs about 100 pounds. The Indians try out the oil in a very primitive manner, and with very rude but picturesque appliances. The blubber is stripped off, then cut into small pieces, which are placed in a huge iron pot, and melted over a fire. All along the beach were placed, at intervals, curious structures, consisting of two upright pieces of wood surmounted by a cross-piece, from which the pots were hung by chains. Under this cross-piece large stones were piled in a semi-circle, inside of which a fire was made that was allowed to burn fiercely until the stones were at a white heat. The fire was then scattered, and the pots containing the blubber were placed under the stones, and just enough fire under them to insure the melting of the blubber. When melted, the oil was skimmed off into other receptacles, then poured into tin cans of about five gallons capacity, and the process was complete. If the oil is pure it readily brings 90 cents per gallon, but if adulterated with seal, or any other inferior oil, its value is reduced to 65 cents per gallon. A very superior oil is obtained from the jaw of the porpoise. The jaws are hung up in the sun, and the oil as it drips is caught in cans placed for that purpose. The quantity of oil thus produced is small, being only half a pint from each jaw, but a large price is paid for it by watch-makers and others requiring a very fine lubricator. The oil from the blubber gives a very good light, and was for a long time used in all light-houses on the coast. It is also a capital oil for lubricating machinery, never gets sticky, and is unaffected by cold weather. When pure there is no offensive smell, and I know of no oil equal to it for those who are compelled to use their eyes at night. The light is very soft, and when used in a German student's lamp one can work almost as comfortably as by daylight, and the dreaded glare of gas and other artificial lights is completely avoided. If industrious and favoured with ordinary success, an Indian can kill 150 or 200 porpoises a year, and they will average three gallons of oil each. But, unfortunately, the poor Indians are not so industrious, or only so by fits and starts, or as necessity compels them. Their way is usually to accumulate some 15 or 20 gallons of oil, then go off to Eustport, Me., with it for market. Thus much time is lost in loitering about the towns, and in going and returning from the hunting-grounds. Moreover, there are always two Indians to each canoe, and the proceeds of the hunt have to be divided. There is quite a demand for the oil, and, if systematically followed, porpoise-shooting would afford the Indians a comfortable support. The flesh of the porpoise when cooked is not unlike fresh pork, and at one time was much used. The Indians still use it, and it is also in request by the fishermen on the coast, who readily exchange fresh fish for "porpus" meat with the Indians.

Powerful Ocean Steamships.

(London Times.)

Twenty years ago, the largest steamers known (in this, as in all such comparisons, neglecting the Great Eastern, which was a prodigy of engineering skill), did not reach 350 feet in length, 45 feet in breadth, 3,500 tons in tonnage, or 4,000-horse power indicated. We have, at this moment, before us a list of 50 merchant steamers sailing, in the year 1860, from Southampton and other southern ports, which the largest vessels then frequented, and the list includes but 10 ships of more than 300 feet in length, none of which reached the limits of size and power just given, and the whole of which belonged to two companies, viz., the Royal Mail and the Peninsular and Oriental. At the present moment we have, afloat and at work, the White Star liners, some of them of 445 feet in length, 35 feet in breadth, and nearly 5,000 indicated horse-power; the Inman liners, comprising such ships as the City of Berlin, 488 feet by 44 feet broad, and of about the same steam power; the Orient, of 445 feet by 45 feet, with engines developing 5,600 horse-power; the Arizona, of about the same size, with still greater steam power and speed; and many other splendid vessels but little inferior to any of the foregoing. And these grand steamers—many of which reach the quays of New York with greater punctuality than railway trains reach the London suburbs from Victoria and Charing-cross, and would reach our quays with equal punctuality if they could avoid the abominable sands that bar the Mersey—are the forerunners of still larger and more powerful vessels now taking shape on the banks of the Clyde and elsewhere. The Cunard steel ship, the Servia, now building, by Messrs. Thompson, of Glasgow, is 500 feet by 60 feet, with over 10,000 indicated horse-power, and will, therefore, doubtless possess a speed considerably in advance of that of the very fastest ship at present afloat in the mercantile marine. The Inman steamship City of Rome, building of iron at Barrow, will be still larger, having a length of 546 feet, a breadth of 52 feet, a gross registered tonnage of 8,000, and a steam power nearly equal to that of the Servia. The Guion line is to be increased by ships of almost equal size and power, and the Allan line is building others equal to the finest of the White Star boats. Notwithstanding the number and magnitude of the passenger steamers now running between America and this country the traffic is so great that it has only been possible to secure accommodation by arranging for passage many weeks, and even months, in advance, while the rapidly increasing population and wealth of the United States and of Canada make it certain that the interchange of agricultural produce and manufactured goods between them and ourselves will go on increasing.

Aeronautics.

The proposed attempt to reach the North Pole by balloon has given an impetus to the science of aeronautics in England. A balloon society has been formed, and, under its auspices, several air ships have been sent up in the vicinity of London. One of them contained Mr. Wright, the aeronaut; Commander Cheyne of the royal navy, who proposes to make an experiment with a balloon in his next Arctic journey; Mr. L. C. Atford of Denver, Colorado, and a newspaper correspondent. In a minute and a quarter from the start they attained the altitude of 1,000 feet, in three minutes 2,000 feet, and in eight minutes 2,350 feet. The object of the travellers was not to go high, but to get over the ground as quickly as possible, and with a gentle breeze they glided along at the rate of thirty miles an hour. In the descent they dropped 1,390 feet in a minute and a quarter. They managed to check their rapid fall before reaching *terra firma*, and landed safely after much bumping on the ground. Of the other balloons, one rose 12,000 feet. The scientific observations of the various aeronauts will be carefully compared, and a report made embodying the results obtained as to the air currents at different heights.

An English journal bewails that the world is threatened with a dearth of lions, that the "king of the forest" is gradually disappearing in his native wilds. But this grave misfortune has encouraged a Frenchman to establish a regular breeding stud of lions at Bona, where lions will be bred and trained for the market. Perhaps the royal east will, in the course of time, become so domesticated that the lion and the lamb may lie down together.