

**The Art of Bird-Stuffing.**

How often have our weary hours been solaced and our shadowy days made light by the singing of the birds and the observation of their graceful forms as they flew from bough to bough or hopped from twig to twig, and we, like other mortals, have wished to preserve around us the beauteous plumage and the perfect figure! We have recently discovered in an English exchange some simple instructions how to do this, and for the use of such of our readers who would like to stuff the birds they kill or that die in their houses, we reproduce the directions:—

Beginners should never attempt to stuff any bird smaller than a blackbird; the larger the bird the easier it is to stuff. First put a small quantity of cotton wool down the throat in order to prevent any moisture escaping from the stomach; this is highly important, and must never be omitted; then break the bones of the wings close to the body; divide the feathers from the bottom of the breast-bone to the vent; divide the skin in like manner. Great care must be taken not to puncture the abdomen; raise the skin with the point of a pen-knife until you can take hold of it with your finger and thumb; hold the skin tight and press on the body with the knife as the skin parts from it, putting the knife farther under until you reach the thigh; break the thigh-bone close to the top joint, and push it gently up until you can take hold of the flesh; now take the bone that is attached to the leg and pull it gently out, turning the skin of the leg inside out; cut the flesh off close to the knee and skin as far down to the back as you can. Do the same with the other side of the bird; if any wet escapes from the flesh, dry it up with fresh bran. With a small pair of scissors, put the skin on both sides out of your way as much as possible; push the body up (the tail of the bird being held in your hand); cut through as close to the tail as possible (this is done inside the skin); then take the bird by the back-bone and gently push the skin down with your thumb-nail till you come to the wings; take as much flesh from the wing joints as you can, and go on skinning till you reach the ears; take hold of them close to the skull and pull them out. Take the eyes out, and be careful not to burst them, holding the skin with one thumb and finger while you pull the eye out of the skin with the other; after taking the eyes out, put as much cotton in the sockets as will fill them nicely. Skin down to the beak very gently, cut the neck away from the skull, and also a piece of the skull to take the brains out; anoint the skin with arsenicated soap, put a little tow round the thigh bones to form the thigh, and gently turn the skin back again; if care has been taken, the loss of the body will make but little difference in the size of the bird. Get three wires, one as long again as the bird, the other two twice the length of the legs, file them sharp at one end, bend the blunt end of the long wire, put some tow on the bend and squeeze it tight to fasten it, then twist the tow until it is about the size of the body, do it as tight as possible. Have some tow cut up small; get a strong wire, rough one point, and turn the other into a bow to hold in your hand; take hold of some of the tow with the rough end, and push it up the neck; this requires but a small portion of tow; put some in the chest and a little all over the inside of the skin. Put the body wire up the neck, and bring it out through the skull at the top of the head; draw the body into the skin and be careful not to stretch the neck; then put the other wires through the center of the foot up the legs, being careful not to break the skin; put enough wire inside the skin to push into the body to fasten the legs; cut off a piece of the wire that has gone through the head, put it through the tail into the body (under the tail, of course); open the eyelids, and put in the eyes (patience is required in young beginners to do this); mount the bird on a perch fastened to a small board, bend the legs so that it will seem to stand in a pro-

per position, be careful not to loosen the leg wires from the body, bring the feathers nicely together between the legs, bend the neck, and put the head in the shape you think proper, then run a pin or a piece of wire through the butt of the wing and into the body, to keep it in its proper place. Should the bird be out of shape in places, raise the skin gently with a needle, put the feathers as straight as you can, put a pin in the breast, back, and under each wing near to the top of the thigh, fasten the end of some cotton to one of the pins, and gently wind it round the bird from one pin to the other; put up the bird when you see that it is right. You had better let the specimen dry of itself, then bake it; keep it free from dust, and it will dry in a fortnight. Spread the tail in a natural position, and when it is dry, unwind the cotton; cut the pins close to the butt of the wing and the head; take out the others, and the bird is finished.

**Manuring Apple Trees.**

MESSRS. EDITORS:—Please inform me what effect it would have on the growth of an old tree if the ground around it were covered for about one foot in depth with manure. How much higher would the tree grow during one summer?

L. R. B.

New York, May, 1859.

[The growth of any tree during one year—either with a liberal application of manure or without any—depends on the character of the seasons, on the nature of the tree itself, and also on its size, as each tree requires food in proportion to its mass. We take this opportunity, however, to make a few remarks regarding the manuring of our chief of fruit trees—the apple.

It would naturally be inferred that apple trees should prosper in growth and yield of fruit in proportion to the amount of fertilizing material applied to them. Such, however, is not the case. No trees are more easily injured by over-forcing, and none require more care and caution in the application of manure. In the northern States, where the winters are severe, and where apples attain to a very high state of perfection, if such trees are forced by manure they become enervated, and their fruit falls off before it becomes ripe, while at the same time they are liable to injury from excessive cold. We were personally acquainted with a series of experiments undertaken in central New York to test the effect of manure on apple trees, and the results of a liberal supply were such as we have stated, namely, much of the fruit fell off before it was ripe, and many of the branches were killed by the frost; while those trees which received no manure kept their fruit well and stood the winter without injury. It was also found that the Fall of the year was the best period for applying any manure that was required.

Mr. Watson, in his "American Home Garden," states that fruit trees, after they have come into bearing, should only be moderately manured. A little salt may be spread widely around them in the spring, or air-slaked lime, at the rate of ten to twenty bushels per acre. \* \* Liquid manure of any kind should be cautiously applied. Animal matter, such as horn-shavings, wool-waste, &c., is valuable; but care should be taken to apply it rather in deficiency than in excess, watching the effect upon the trees, and repeating or discontinuing its use accordingly, always aiming to induce moderate, regular and steady growth rather than excessive bearing. A very thin top-dressing of well-rotted barnyard manure in the Fall, and about ten bushels of plaster to the acre, sown in the spring every three years, is held to be about the best known method of treating an apple orchard.

TRAVELING IN CIRCLES.—A recent correspondent of the *N. Y. Daily Times* advances the theory that the reason why lost persons travel in circles, when bewildered, is because one leg is shorter than the other. We trust that the author of this profound and brilliant idea will permit us to laugh at his theory, at least.

**Enameling Hollow Ware.**

An English journal gives the following advice about enameling of cast-iron sauce-pans and other hollow-ware:—

The vessel must be first cleaned by exposing it to the action of dilute sulphuric acid (sensibly sour to the taste) for three or four hours, then boiling the vessel in pure water for a short time, and next applying the composition. This consists of six parts calcined flints, three parts borax calcined and finely ground with the above. The mixture is to be fused and gradually cooled; then add one part potter's clay; the whole to be ground together in water until the mixture forms a pasty consistenced mass, which will leave or form a coat on the inner surface of the vessel above one-sixth of an inch thick. When this coat is set, by placing the vessel in a warm room, the second composition is to be applied. This consists of six parts white glass (without lead), two parts borax, and two parts soda (crystals), all pulverized together and vitrified by fusion, then ground, cooled in water, and dried. To this mixture one part soda is to be added, the whole mixed together in hot water, and when dry, pounded; then sifted finely and evenly over the internal surface of the vessel, previously covered with the first coating or composition, whilst this is still moist. This is the glazing. The vessel thus prepared is to be put into a stove, and dried at a temperature of 212°. It is then heated in a kiln or muffle like that used for glazing china. The kiln being brought to its full heat, the vessel is placed first at its mouth to heat it gradually, and then put into the interior for fusion of the glaze. In practice, it has been found advantageous also to dust the glaze powder over the fused glaze, and apply a second fluxing heat in the oven. The enamel, by this double application, becomes much smoother and sounder. It must be further observed that, when the "general material" for enameling is made, the different colorings are easily imparted, as required; but specific receipts must be given for these details.

**Cotton-bale Iron Hoops.**

The *New Orleans Crescent* of the 2d inst. gives an account of a rather expensive experiment that was lately made on the Metairie race course, near that city, for testing the superiority of the iron hoops of H. Fassman on cotton-bales, in cases of fire, over the old hempen rope. Four bales of cotton were subjected to the test, to wit: one bale of ordinary packing, from a country press, bound in rope; a similar bale bound in iron; one small compressed bale bound in rope, and a similar bale bound in iron. All were placed on properly erected piles of pitch-pine sticks, filled in with chips and shavings, in order that the fire, when started, might be fierce and rapid. In about fifteen minutes after the fire was applied, nearly all the ropes of the two bales had parted, which thus permitted the cotton to burst out and burn. On the other hand, although the bagging of the iron-hooped bales was burned, the cotton remained firm, and all the effect produced upon the cotton was a slight charring of its outside surface. In half an hour the rope-bound bales had fallen down in loose masses, and the cotton burned freely, but the iron-bound sides sustained very little injury. This experiment afforded positive proof that iron-hooped cotton bales will prevent the rapid burning, by accidental fires, of cotton-laden steamers and cotton-filled stores. As long as cotton bales are kept firmly bound together the air cannot penetrate into them to support combustion; the fact, therefore, is self-evident, that iron hoops for cotton bales are the most safe, as a provision against fires.

THE CIGAR STEAMER.—This vessel made another trip on the 10th inst., after being greatly altered, but as we learn from the *Baltimore Sun*, it could not have met the approbation of its owners, notwithstanding the flattering account given, as the article closes by stating that very great alterations are again to be made in her hull and machinery.

**The New Series—What is said of the Proposed Change.**

Venturing on a new enterprise, when its success depends more upon the taste or caprice of others than upon personal industry or capability, is at all times a hazardous affair. The enlargement and proposed alteration of the size of the *SCIENTIFIC AMERICAN* is such a venture, and our gratification is extreme when we find that our efforts are appreciated throughout the country, and our desire to spread information and intelligence meets with a warm and hearty reception all over the land. We are continually receiving letters approving of our scheme, and offering aid in extending our sphere of usefulness, a few of which we publish to stimulate others to follow the bright examples of the writers, our only wish being that all who read will "do likewise."

Mr. H. S. Hull, of Jamestown, N. Y., writing for the firm with which he is associated, says:—"We are in receipt of your note announcing the success of our application, and last evening's mail brought our Letters Patent from Washington. Please accept our sincere thanks for the promptness and ability with which you have conducted our case to a successful issue. We were agreeably surprised to find the case acted on so soon, supposing it would take a longer time. The 'SCIENTIFIC' is already a—I won't say 'household'—but I will say 'shop word,' in this village, and through the exertions of a very worthy gentleman (Mr. Palmeter) who is agent here, many are being induced to subscribe to the new series, and all are very politely invited to hand in their names. I have been a reader of your journal for the last two years, and in due time shall register my name among your subscribers. As far as personal influence extends, I will pledge that in your behalf for the future."

[The Mr. Palmeter who is mentioned by Mr. Hull, has been a warm supporter and admirer of the *SCIENTIFIC AMERICAN* for many years.—EDS.]

L. Hatfield, for 28 subscribers, of Cuyahoga Falls, Ohio, says:—"I have talked with some readers of the *SCIENTIFIC AMERICAN* in regard to your scheme of enlargement and change of time of commencing, and system of dividing the volume. All approve of the plan. I think we can send you a respectable list of names to commence the volume with. You have our thanks for the correct and plain answers you have given to the many questions we have troubled you with."

[No trouble, friend Hatfield; it is part of our business.—EDS.]

John Shinn, of Loverington, Pa., agrees with our idea fully. He writes:—"Being a constant reader of your valuable paper, and seeing in your last number a notice of your proposed enlargement and improvement, I think that I could get up a club of twenty, at least, in the immediate neighborhood where I live. Your paper is a valuable one, and should be in the hands of all mechanics, manufacturers and dyers. The volumes which I possess I find extremely useful for reference."

P. H. Wait, of Sandy Hill, N. Y., writes, saying:—"With much pleasure I read the announcement of your project of folding the *SCIENTIFIC AMERICAN* into a smaller form, as well as extending the reading matter. \* \* \* In suitable binding it would grace any center table or reading room."

With encouragement like this we feel hopeful for the future, and trust that our present readers will do what they can to prevent us being out of pocket from our extended outlay. They can do this easily if every one would only send another subscriber; the reward is worth the labor, and we have faith to believe that all will try.

FOUL WELLS.—A correspondent of the *London Times*, referring to a recent case of choke-damp in a well, says:—"If an empty bucket had been lowered, drawn up, and inverted away from the mouth of the well, so as to empty it of its heavy carbonic acid gas, and this repeated again and again the pit would speedily have been freed of its noxious damp."