

SKINNING AND STUFFING OF SMALL QUADRUPEDS.

In a recent article we gave directions for the skinning and stuffing of birds. We will now supplement those directions with information necessary to enable the amateur to skin, stuff, and mount small quadrupeds.

The directions for stopping the flow of blood, etc., are to be observed as with birds, but it is advisable to thrust cotton into the nostrils, mouth, and vents of small quadrupeds to prevent the efflux of any discharge which is likely to occur, particularly if the animal has been feeding freely not long before it was shot. As fine shot should be used as is consistent with success in the hunting of such animals, for reasons which are obvious.

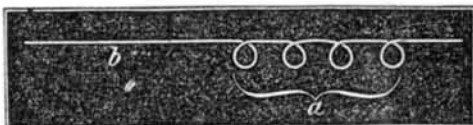
The skinning is begun by making a longitudinal incision between the hind legs, extending quite back to the vent, the hair having previously been carefully parted so that it may not be cut. Care should be taken to only cut through the skin, and not cut into the abdominal cavity. The skin can now be separated from the flesh and turned back as far as the thigh, which is now severed at the joint. When this is done on both sides, the gut should be drawn out and severed a short distance from the vent. The tail should also be disjointed at the root. This being done, the skin can be loosened around the body until the fore legs are reached, when they should also be dis severed. The skinning now proceeds along the neck till the skull is reached. Here considerable care is necessary to remove the skin without damage to ears, eyelids, and lips. The skin is left attached to the skull after the skinning has proceeded far enough to expose the muscles of the jaws, and must be separated from the body at the first joint of the neck. The tongue, eyes, and muscles remaining attached to the head, are now to be carefully removed, and the brain taken out from an opening in the back of the skull cut through for that purpose. To make this opening amateurs can use a small gimlet or bit, with very small animals and a larger one as circumstances may demand. The legs are now to be skinned out quite down to the claws, which completes the operation of skinning.

During the entire process all fluids escaping must be immediately soaked up with cotton. As soon as the skin is removed it should be thoroughly rubbed with arsenical soap, not omitting the inside of the skull and the mouth cavities.

The method of stuffing is conducted on similar principles to that described for birds, but there is rather more difficulty in replacing the facial muscles. For this purpose a pair of slender-jawed pliers will be found very convenient.

We copy verbatim from the *American Naturalist*, the following directions for mounting the skin of a small animal like a squirrel.

"Provide yourself with cotton, thread, and twine; also the stuffing forceps, a pair of pincers, file, and wire cutters. With the aid of the forceps supply the various muscles of the face and head, by inserting cotton both through the mouth and eyelids. Take annealed wire of the proper size, and cut from the coil six pieces: No. 1, two or three inches longer than

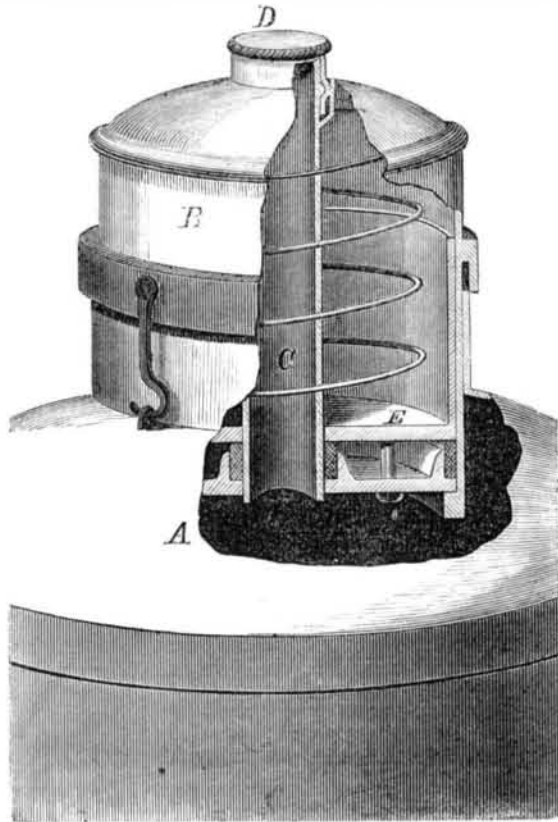


the total length of the body; Nos. 2 and 3 for the forelegs; Nos. 4 and 5 for the hind legs; each of these should be two, or even three inches longer than the limbs they are to support; No. 6, for a support to the tail, of the same proportionate length as the others. With a large pair of scissors, cut fine a quantity of tow, and with this, and the aid of the long forceps, stuff the neck to its natural dimensions. Taking wire No. 1, bend in it four small rings, the distance between the two outer representing the length of the body taken from the skin, a, leaving one long end for a support to the head and neck, b. Mold tow about that part containing the rings, and by winding it down with thread, form an artificial body, resembling in form and size the natural one taken from the skin. Sharpen the projecting end to a fine point with the file, and insert it up through the cut tow in the neck, and thence through the skull; the skin should then be pulled over the body. Wires, Nos. 2 and 3, should then be placed in position, by inserting them through the soles of the feet, up within the skin of the leg, and through the body of tow, until they appear upon the opposite side. With the pincers bend over the end of each, forming a hook; the wires must then be pulled backwards, thus fastening the hooks firmly into the body. The loose skin of the limbs should then be stuffed with cut tow, taking care to imitate the muscles of the living subject. Nos. 4 and 5 can be fixed in position after the same manner, unless the animal is to rest entirely upon its tarsi (as in the case with the squirrel when feeding), then the wire must be inserted at the tarsal joint instead of the sole of the foot. If any depressions appear in the skin they must be stuffed out with the cut tow. Wire No. 6 should now be inserted at the tip of the tail, and forced down within the skin, hooking it into the body in the same manner as the leg wires. Stuff the tail to its proper dimensions with cut tow, and carefully sew up the incision along the abdomen. Having prepared a board about three-quarters of an inch thick, pierce in it two holes at a proper distance apart for the reception of the leg wires (four holes would be needed if the animal were to stand upon all extremities), these must be drawn through upon the under side until the feet of the specimen rest close upon the upper surface, then they should be clinched, taking care that the wire does not protrude above the surface of the board as it renders the support unsteady. The different joints of the limbs can now be imitated by bending the wire at the proper points; also, a curve can be given to the back, and the tail can be set into proper position by simply bending the

wires into the required shape. The eyes should now be placed in their position, a little putty having been previously inserted within the eyelid to serve as a cement. Care should be taken in arranging the eyelid, for the expression depends altogether upon this point. Clip off any superfluous wire which may extend above the head with the wire cutters. The specimen should be placed in some locality free from moisture and allowed to dry thoroughly, when it is complete for the cabinet."

BURGHARDT'S IMPROVED MILK CAN STOPPLE.

In the transportation of milk to market and its delivery to consumers, much of it is badly injured, especially in hot weather, by the breaking of the butter vesicles, so that the fluid is in an intermediate state between pure fresh milk and butter. This is occasioned by the jolting to which it is subjected, an operation analogous to churning. It is evident, therefore, if the milk can be kept motionless it would be as fresh at the end of its journey as when first put into the can. In the device herewith illustrated this is very ingeniously accomplished. In place of the usual stopple, or cover, there is put on the can, A, a cylindrical cap, B, that is secured to the



top of the can by means of hooks, as seen, or any similar device, a joint being made by a rubber ring seated in the cylinder. In the center of the cap is a tube, C, closed at the top by a cap, D, fastened with snugs and inclined channels similar to the method for securing the lamp in an ordinary lantern. This tube is open at the ends, forming direct communication with the interior of the can. A piston, E, fits closely the interior of the cylinder and the exterior of the pipe and is kept down by a spiral spring inside the cylinder.

When the can is filled, the cylinder is secured to the can and then milk enough poured into the tube, C, to fill it to the top. The bottom of the piston bears on the surface of the milk and the spring resists the tendency of the milk, when jolted to move. The utility of the improvement is evident.

Patent pending through the Scientific American Patent Agency. Further particulars may be obtained by addressing J. M. Burghardt, Great Barrington, Mass.

Patent Office Decisions.

Commissioner Fisher has given his decision in the interference case between the applications of S. M. Clark, late of the printing division of the Treasury, and A. C. Fletcher, of New York city. The only question to be decided was that of priority of invention, both of the parties having invented a self-canceling stamp, and, so far as any evidence is shown, without any knowledge of the other's labors.

He has also given his opinion in the interference case of White and Purdy for a box opener, giving the patent to White. In this case two neighbors claim to be the original inventors of the same tool.

Arguments on the celebrated Harman and Gilmore millstone dressing machine interference case was heard on Tuesday, the 18th of May. This is a very interesting case, and has excited considerable attention from inventors and others interested in patents; not so much on account of the direct interest as upon the side issues incidentally involved.

In 1863, or thereabout, John T. Gilmore, of Painesville, Ohio, obtained a patent for his machine, but did not push its introduction to any great extent. In 1867, one Gooley applied for and obtained through some oversight of the office a patent for precisely the same thing. The patent, upon coming before the courts, was set aside by Judge Olin, a year or two since.

Before the issue was made, Gooley had sold his patent to a gentleman from London for \$130,000, and \$40,000 had been paid upon it. In order to make himself whole in the matter this gentleman induced Hermann, a Frenchman, to apply for a patent in this country for his French patent taken out in France in 1854. Some changes were made in the machine, and in its new form it was submitted to the Office for a patent. An interference was declared, and the

case came before Commissioner Fisher upon a question of priority of invention, and a claim that the machine patented by Harman and that by Gilmore were unlike. Without closely scrutinizing the other questions, the Commissioner rejected the application of Harman on the ground that his invention was in "public and common use" in this country prior to his application for a patent from the United States.

Upon the appeal of S. W. Adwen, of Rochester, N. Y., who applied for a patent for a mode of baling hay and straw, Commissioner Fisher has reversed the decision of the Board of Examiners, and ordered a patent to be issued.

Telegraph Lines and the Aurora Borealis.

Mr. George B. Prescott, well-known as an electrician and author of valuable works on the telegraph, makes the following interesting explanation of a phenomenon noted in the case of the recent auroral display:

"On the evening of the 15th of April a magnetic storm of unusual force prevailed over the entire northern section of the country, which so seriously affected the operation of the wires that, on some circuits, they could only be worked by taking off the batteries and employing the auroral current instead. The effect of this great disturbance of the earth's magnetism was manifested with particular power upon the wires between New York and Boston, and for several hours the lines upon this route depended entirely upon this abnormal power for their working current. During the prevalence of this storm, however, I operated upon two wires between the above cities by a plan which rendered them as free from the effects of these earth currents as a local circuit.

Every one has observed that the auroral current comes in waves of ever-changing polarity, corresponding in length and direction with the scintillations of the visible aurora. Sometimes these waves continue but a few seconds, and sometimes for a longer time, but their constant change of polarity prevents the successful operation of a wire, because at one moment the auroral wave may augment the strength of current on the line, while at the next it entirely neutralizes it. Therefore, it has frequently been found advisable to remove the batteries entirely and work with the auroral current alone. But the operation of the lines in this manner is very unsatisfactory, owing to the uncertain and fitful character of this force; and, therefore, any feasible plan by which the wires may be worked under such circumstances is worthy of adoption.

"The plan by which I overcome the difficulties arising from the disturbance of the earth's magnetism was by disconnecting two wires from the earth at Boston, and connecting them together, while I grounded them both at New York, thus forming a loop extending from New York to Boston. As the two wires were both upon the same supports, the auroral wave traveled over each in the same direction, and, by uniting the two wires at one end, the auroral influence upon one wire was made to neutralize that upon the other, and thus the wires were left entirely free.

"Of course it makes no difference how often the polarity of the auroral current changes, or how much the strength of this current may vary, since the direction of the current, and its strength, change as much upon one wire as the other, and therefore the current upon one always exactly equals and neutralizes the other."

Recipes for Colored Potters' Glazings.

WHITE GLAZING.—Prepare an intimate mixture of four parts of massicot, two parts of tin ashes, three fragments of crystal glass, and one-half part of sea salt. The mixture is suffered to melt in earthen-ware vessels, when the liquid flux may be made use of.

YELLOW GLAZING.—Take equal parts of massicot, red lead, and sulphuret of antimony. Calcine the mixture and reduce it again to powder, add then two parts of pure sand, and one and a-half parts of salt. Melt the whole.

GREEN GLAZING.—Two parts of sand, three parts massicot, one part of salt and copper scales, according to the shade to be produced. The mixture is melted as directed above.

VIOLET GLAZING.—One part of massicot, three parts of sand one of smalt, and one-eighth part of black oxide of manganese.

BLUE GLAZING.—White sand and massicot, equal parts, one-third part of blue smalt.

BLACK GLAZING.—Two parts of black oxide of manganese, one of smalt, one and a-half of burned quartz, and one and a-half of massicot.

BROWN GLAZING.—One part of fragments of green bottle glass, one of manganese, and two parts of lead glass.

The Phelan Prize Billiard Cue.

We have had the gratification of personally examining this cue, with which the public have been made more or less acquainted through the daily press, and which was won by Mr. John Deery, at the grand billiard tournament held in this city and closing on May 10th. It is valued at \$600, and was designed by Mr. Phelan, of the firm of Phelan & Collender, billiard table manufacturers in this city, and is a very beautiful piece of workmanship. It is of ivory, tipped by a large and beautiful diamond, with handle mounted with gold, mother-of-pearl, and valuable jewels. The fortunate winner will be more fortunate still if he succeeds in keeping it against all contestants.

THE underground railroad bill has been revived by the Legislature. The charter is in the hands of responsible men and we trust that this important work may be carried forward without delay. The corporators are allowed two years to begin the construction of the tunnel, and are to have three years thereafter in which to complete it to the Harlem River.