

ELECTRIC SHOOTING PULL.

Trap shooting is becoming a great sport in this country, and gun clubs are springing up in almost every State. The old way of pulling the traps with ropes is gradually being dropped and the new electric pull substituted in its place. With the old way the ropes would very often get entangled, causing a great deal of delay. With the electric pull the trap is sprung instantly as soon as the shooter calls out "Pull!" The traps are made mostly of cast iron, about 1 foot in height. The elevation arm, containing the trigger, spring, and swinging arm with carrier, is about 2½ feet in length. This arm can be placed at almost any elevation, being connected by means of a movable bolt to the circular head of the upright post of trap, which rests in a ball socket in the base or stand of trap and can be turned also at any angle. The spring is of steel and is 1½ inches in diameter and about 9 inches in length, and has a pressure of about 250 pounds.

The traps are set and the birds placed in the carriers by boys. The trigger is connected to the electric trap pull by means of a leather strap which is fastened to a bolt passing down through the top of the battery

are 4¼ inches in diameter and 1 inch in height and ¼ of an inch in thickness. They weigh about 3 ounces each. The birds are saucer shaped and fly with the convex side up. The tops of the birds are painted a bright yellow, giving the shooters a spot to aim at before firing.

The carrier is V-shaped, having on one side a raised slot, in which the flange on the bottom of the bird rests. On the other side is a movable arm, with a spring attachment. The bird is held firmly in place by the aid of the spring and rubber button on the end of arm. The sudden stoppage after the trap has been sprung forces the bird out of the carrier. The shooters generally use 12 gauge shells loaded with No. 7 trap shot. The clay birds cost \$8 per thousand. The traps weigh about 5 pounds each and cost in sets of 5, with electric apparatus, \$53. Single traps cost \$11.

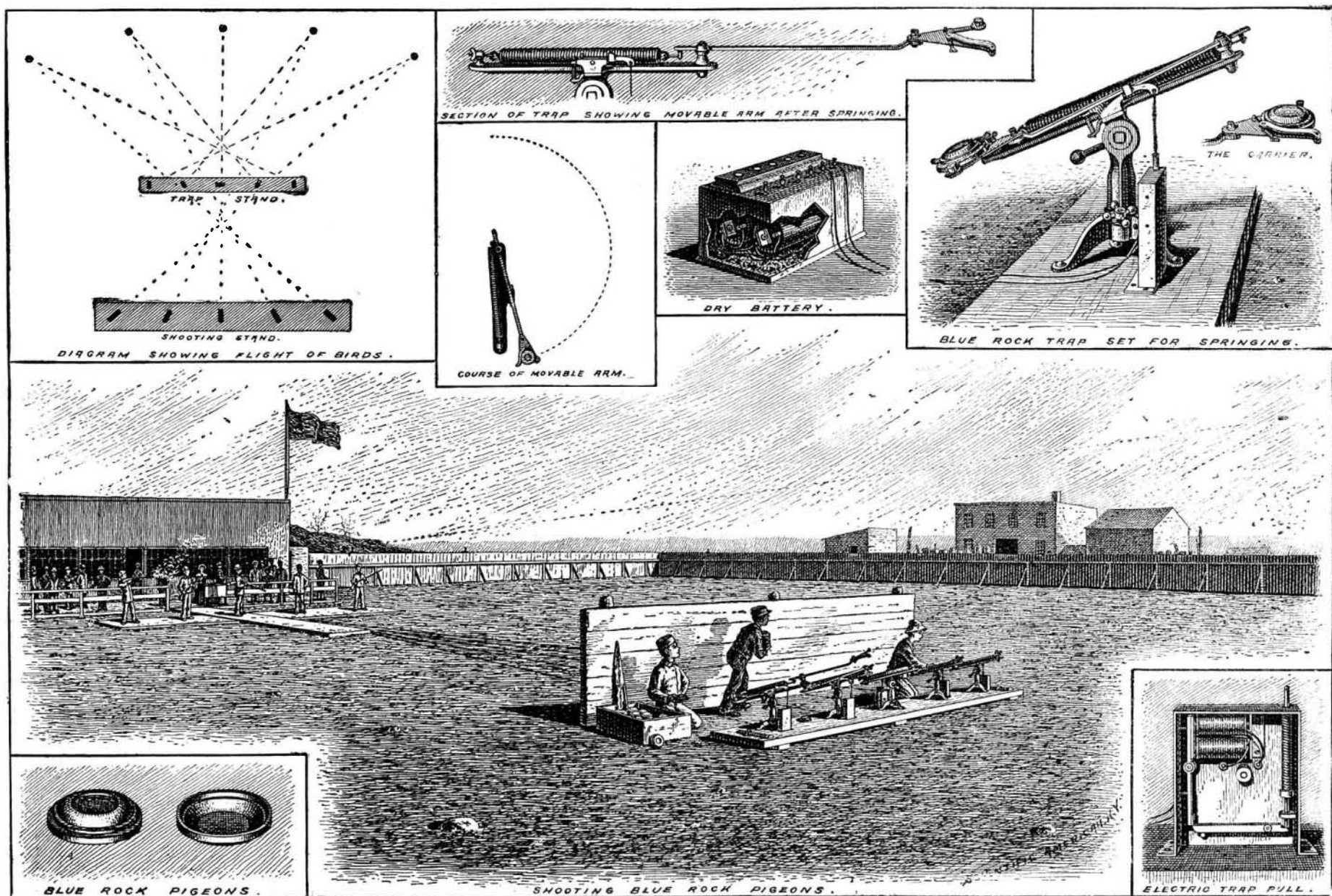
Skinning and Mounting an Ostrich.

BY OLIVER DAVIE.

In the month of January, 1891, three days of my time were consumed in the skinning and mounting of an African ostrich which had died at the winter quar-

Lifting the skin along the breast and on the legs the knee joint was laid bare and severed, the thigh remaining attached to the body. All the muscles and tendons were removed from each leg when skinning proceeded, in the usual way, over the back and down the neck. The head being too large to pass through the skin of the neck, the vertebrae were accordingly severed as close to the head as possible; the head being skinned through an opening made on the back of the head and down the neck for about eight inches.

A center board was now made exactly the shape of the contour of the body, and a large square hole was cut in each end of this board. These openings are made in order that in laying the tow on to build out the manikin, it can be more firmly secured by sewing through from one side to the other with needle and twine. The next thing to be done was to lay the skin on the floor, and to arrange the legs in the stepping position I had previously decided upon. This being done, a heavy piece of annealed wire was used in obtaining the exact position of the legs, following closely and neatly every bend in the joints, clear down to the sole of the foot. From these patterns my blacksmith made,



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box, the lower end of the bolt resting on one end of a releasing lever. The other end of lever passes just under the edge of the lever at the side which connects with the battery. When the current is on, the top of side lever draws toward the battery, releasing the bottom lever and causing the bolt with the spring attachment to drop down, pulling the trigger of the trap with it and letting loose the swinging arm which throws the bird into the air. The electric pull is connected to a dry battery on the platform behind the shooters' stand, which is about 20 yards from the traps. The shooters and traps are numbered 1, 2, 3, 4, 5. When No. 1 is ready to shoot he calls out "Pull!" The party in charge of the dry battery touches electric button No. 1, and No. 1 trap throws its bird in the air. Traps No. 1 and 5 throw their birds at an angle of about 30 degrees, traps No. 2 and 4 about 15 degrees, and trap No. 3 straight ahead. Shooters Nos. 1 and 5 shoot at the birds that fly at the greatest angle. Nos. 2 and 4 shoot at the next angle, and No. 3 straight ahead. The birds will fly about 60 to 70 yards from the traps, and to a height of about 150 feet. The shooters fire at the birds as soon as they show themselves above the wooden screen, before they get too far away. This screen is made of heavy planking, to protect the boys attending the traps from flying shot.

The birds are made of a mixture of clay and coal tar, and are very brittle. The shooting surface when the bird is in the air is about 4¼x1½ inches. The birds

of Sells Bros.' menagerie. I had long desired to try my hand on the giant of birds, and this one finally offered ample opportunity. The bird was a male and weighed one hundred pounds, and was undoubtedly in poor condition.

In the skinning and dissection of this specimen I learned more of comparative bird physiology than any opportunity had presented for years.

Its being the connecting link between the birds and quadrupeds, I saw at once how rudimentary the wish bone is, while the shape of the breast bone is like that of a turtle's back, and placed far up in front. Its enormous crop, powerful gizzard, the immense muscles and tendons of the legs, calculated no doubt for the support of the bird in running long distances, and, on the whole, the peculiarly shaped contour of the naked trunk or body, were subjects which naturally gave rise to the careful study and the comparison of similar parts in the structures belonging to those of the less powerful of the feathered tribes.

After taking some notes and sketches of the four or five remaining ostriches of the group, I carted the dead specimen to my workshop, where I proceeded to skin it. An incision was begun high up on the breast and continued to the vent. A cut was then made on the breast directly across to each leg and continued down on the inside of the leg out over the heel, thence down over the back of the tarsus clear down under the foot to the end of the large toe.

from round, half-inch iron rods, their counterparts in shape. The ends were threaded and provided with nuts and washers, and the ends which were to pass through the center board were bent the proper angle and length, so as to make the thickness of the body, which was obtained by blocking out on each side. The neck was made over a heavy iron wire which was fastened to the center board, and the whole manikin was covered with clay and modeled to represent the natural body of the bird. Before finally placing the skin on this artificial structure it was thoroughly poisoned; twice with arsenical soap and once with a paste made with an arsenical solution and common whiting. I used clay in forming the muscles about the head and in many places about the body, legs, and feet which required peculiar shapes. Having seen a number of mounted ostriches, I noted that in most of them, and especially in those where the attitude was that of running, the feet were made to lie perfectly flat on the ground, whereas, according to my observations, the ostrich walks or runs on the ball of the foot, as it were. In my specimen I avoided this fault by having the iron rod fit closely into the big toe, while the bend which went into the platform came out about the middle of the sole.—*The Taxidermist.*

Thin belts, as wide as possible, give by far the best results working vertically. A thick vertical belt will not hug the pulleys.