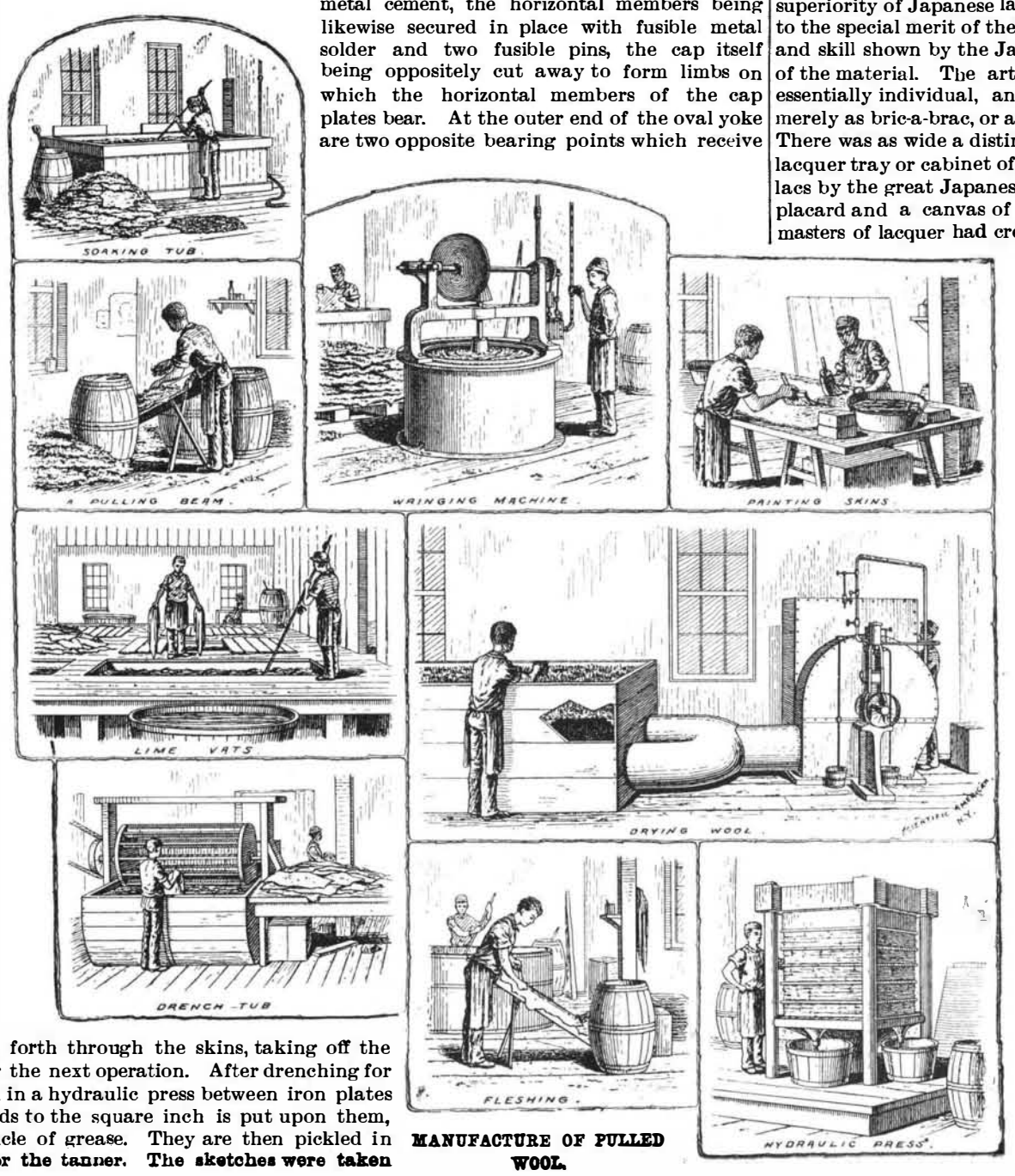
WOOL PULLING.

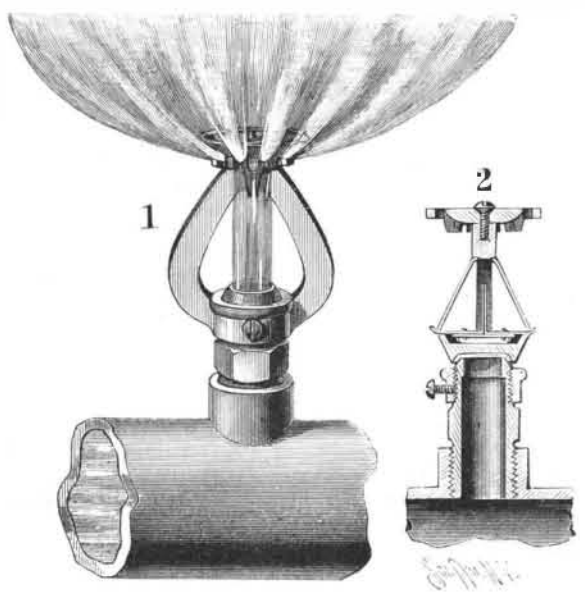
Pulled wool or skin wool is the wool that is pulled off the skins of slaughtered sheep after going through a process of washing, painting and drying. The wools are of different lengths, and are graded into what is called carding, combing, carpet and knitting wools. The fresh skins are gathered up from the slaughter houses as soon as possible and placed into a 6 by 14 wooden soaking tub, where they are left until they become thoroughly soaked with water. They are then taken out and put into a wringing machine. This wringer is tin pail shaped and revolves around inside of a circular iron frame. The wringer is made of iron; it is about 4 feet in diameter and 3 feet in height and revolves around by means of a perpendicular shaft running down through the center. Attached to the side of the framework of the machine is a small steam apparatus which connects itself by means of a crank to a horizontal shaft running across the center. Connected to this shaft is a solid two-foot beveled wheel which rests firmly against a small conical-shaped wheel connected to the center shaft. When the machine is set in motion the revolving of the large wheel which rests against the other causes the center shaft with the wringer to revolve also. About 40 or 50 of the wet skins are put into the wringer at a time, and after revolving around a few moments at the rate of 120 revolutions per minute, which causes the water to leave them, which is carried off through a number of holes at the bottom, they are then taken out and the under or skin side painted with a solution of lime and sulphite of sodium. This coating of paint after lying about 6 or 8 hours acts on the pores of the skin and loosens the hair so that the wool can be easily pulled off. The skins are then taken to the pulling beams and the wool stripped off and sorted. The pulling beams are oval shaped and made of pine. The attendant places one skin at a time on the beam and pulls the wool off by the hands. One man can strip and sort from 80 to 100 skins per day. The wool is then taken to the drying room. The contrivance for drying is about 75 feet in length, about 10 feet in width, and about 5 feet in height, the sides being inclosed with wood with an asbestos flooring. The wool is spread as uniformly as possible over a framework of wire netting fastened securely to the sides, about 4 feet above the flooring. The heat is introduced underneath the wire netting by means of a Sturtevant blower. This blower draws the heat from an inclosed coil of steam pipe and forces it out through a two-foot pipe into the end of the drying box. The heat passes underneath the wire netting and up through the wool, drying about 1,000 pounds in a temperature of 140° in about 3 hours time. The wool is then packed in bags of about 175 pounds each, and is ready for the woolen mills. The pelts or skins, to the number of 500, are then put into wooden vats containing a solution of lime and water. These vats are about 9 feet in depth, about 12 feet in length and about 4 feet in width. The skins are left there about 10 days, the lime taking off the fine hair not pulled off by the hand, and also preparing it for the tanner. They are then washed off with a hose and taken to the fleshing beams, where every particle of flesh and fine hair is scraped off by the operator drawing a double handled knife back and forth over the skin. An expert operator can scrape about 16 dozen per day. The skins are then put into a drench tub holding about 800 gallons of warm water, suspended over which is a paddle wheel 6 feet in length and about 3 feet in diameter, the bottom of which rests in the water about 6 or 8 inches. A quantity of bran is added to the water, the wheel set in motion, which drives the water back and forth through the skins, taking off the dirt and cleaning them for the next operation. After drenching for 6 or 8 hours they are placed in a hydraulic press between iron plates and a pressure of 3,000 pounds to the square inch is put upon them, which forces out every particle of grease. They are then pickled in vitriol and salt and ready for the tanner. The sketches were taken from the wool pulling establishment of James C. Malone & Co., Jersey City, N. J.



MANUFACTURE OF PULLED WOOL.

A FIRE EXTINGUISHING SPRINKLER.

This is a simple device designed to deliver a drenching shower of water from a supply pipe when the heat in a room where it is placed becomes sufficient to melt the fusible metal joints of its peculiar sealing connection, thus releasing the sprinkling mechanism and water seal at the same time. The improvement



HOLMES' AUTOMATIC SPRINKLER.

has been patented by Mr. Thomas Holmes, of Chicago, Ill., P. O. box 655. Fig. 1 shows the operation of the device and Fig. 2 is a sectional view. A cylindrical shell, having one end adapted for threaded engagement with a water supply pipe, is connected at its other end with an oval yoke piece by a ferrule, a set screw securing the yoke at any desired point on the end of the shell. On the outer end of the shell is the seat of a dished sealing cap, a joint piece being introduced, preferably of soft sheet metal. The sealing cap is shaped to receive the tie-plate of a prop piece composed of two similar right angle bent plates whose upright members are soldered with a fusible metal cement, the horizontal members being likewise secured in place with fusible metal solder and two fusible pins, the cap itself being oppositely cut away to form limbs on which the horizontal members of the cap plates bear. At the outer end of the oval yoke are two opposite bearing points which receive the notched lower ends of brace plates whose upper ends engage the lower surface of the horizontal members of the prop plates, while in the flat terminal of the yoke, at its axial center, is a threaded perforation, the exterior of the end being rounded and converged to produce a conical deflector for liquid projected from the shell upon it, or the part may be cylindrically formed. The proportionate size of the parts is such that the sealing cap will normally be held closely pressed upon the joint plate, and water or other liquid in the supply pipe will be prevented from leaking; but, on the temperature being raised sufficiently to melt the fusible joints, the parts which support the sealing cap yield to the water pressure, permitting a strong flow of water, which the spraying disk throws outwardly, breaking up the column into a shower of fine streams.

Japanese Lacquer.

Under the auspices of the Japan Society, a classified loan collection of specimens of Japanese lacquer, illustrating the work of each master and school, was lately opened at the rooms of the Royal Medical and Chirurgical Society, Hanover Square, London. Subsequently, at a meeting, Mr. Ernest Hart read a paper on "Masters, Periods, and Styles in the Lacquer Work of Japan." In this he also spoke of the material, the method of working it, and the localities in which it was produced. It had been well said, he remarked, that of all art industries the treatment of lacquer was the most refined, the most perfect, and the least monotonous. He regretted the peculiar difficulties under which students of this industry labored, owing to the absence of any standard collection of certified and reputable examples, either at the South Kensington Museum or at any other museum in this country. The industrial importance of lacquer work was hardly less than its art value. He knew no reason why the lacquer tree should not be grown in this country. Its sap, which was used as the material of all lacquer work, was a natural essence, having a vast superiority over any varnishes used here. Unlike even copal, which was an artificial mixture of resin, fatty oils, and turpentine, Japanese lacquer was a ready-made product of nature, which, when hardened, was of mirror-like smoothness, unaffected either by acids or hot water, and of great durability, never splitting or cracking.

It was employed in Japan for an infinite variety of uses, even for such objects as acid tanks, ship keels, and photographic tablets, not to speak of the finer uses for coach panels and objects of domestic use. The unique superiority of Japanese lacquer work was due not only to the special merit of the material, but also to the care and skill shown by the Japanese in the manipulation of the material. The art lacquer work of Japan was essentially individual, and we ought not to treat it merely as bric-a-brac, or as an indistinguishable whole. There was as wide a distinction between the ordinary lacquer tray or cabinet of commerce and the exquisite lacs by the great Japanese artists as between a street placard and a canvas of Raphael. Each of the great masters of lacquer had created a style of his own and had founded a school, of which the traditions were kept alive by his successors for centuries. Many important private collections were now to be found in England, duly catalogued and classified, and he hoped that the present example would be followed for the public benefit in the great art museums in the metropolitan and other centers in Great Britain.

An Improved Mounting Adhesive.

One of the helps the amateur photographer has nowadays is the ready prepared supplies which ease his way to the making of pictures. A good mounting paste, free from grit or lumps, and that will keep moist, is one of the necessities in mounting photographs neatly, and a trial of the Higgins photo. mounter convinces us that it possesses these qualities to a high degree. It is said to contain less water than usual, thus preventing prints from warping or cockling as much as when the ordinary starch paste is used. This permits the prints to dry quicker and to be burnished sooner than usual.