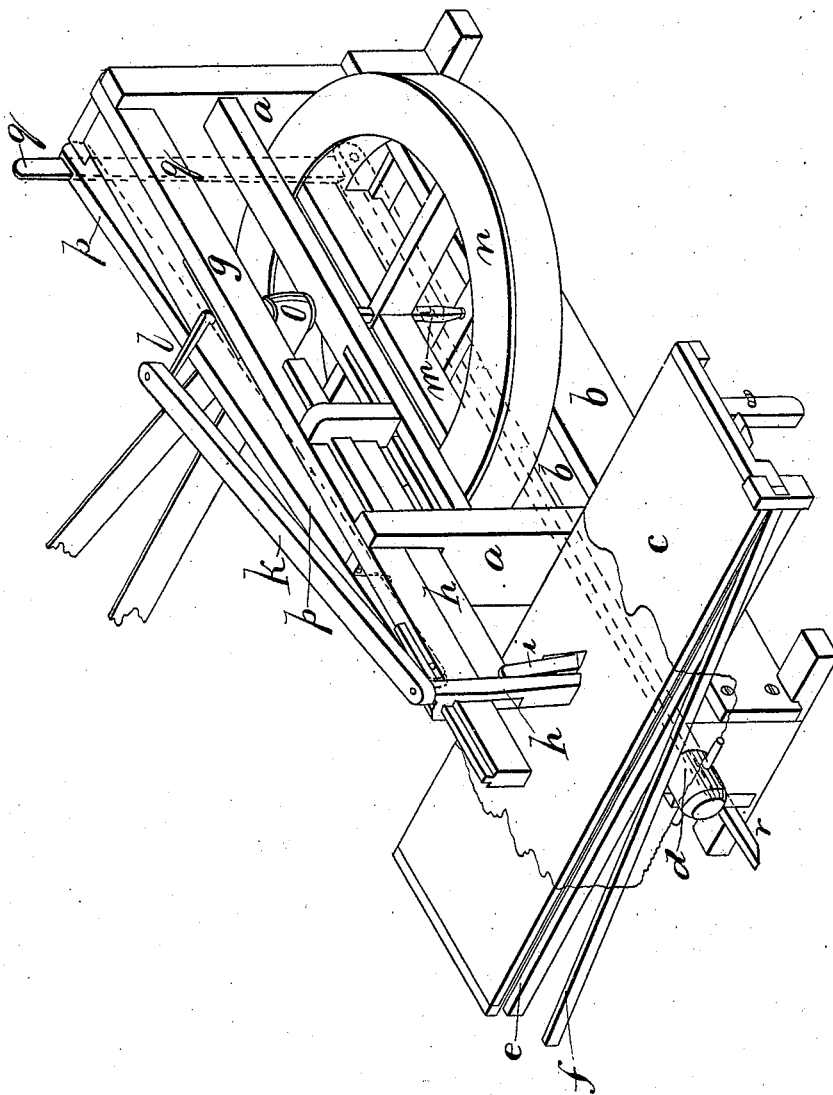


A. Smith,
Preparing Hides,
N^o 4,712. Patented Aug. 26, 1846.



UNITED STATES PATENT OFFICE.

ANTHONY SMITH, OF CUMBERLAND VALLEY, PENNSYLVANIA.

BREAKING AND SCRAPING HIDES.

Specification of Letters Patent No. 4,712, dated August 26, 1846.

To all whom it may concern:

Be it known that I, ANTHONY SMITH, of Cumberland Valley, in the county of Bedford and State of Pennsylvania, have invented a new and useful Improvement in Machinery for Beaming, Breaking, or Fleshing Hides, and that the following is a full, clear, and exact description of the principle or character thereof which distinguishes it from all other things before known and of the manner of making, constructing, and using the same, reference being had to the accompanying drawing, making part of this specification, which is an isometrical view of my apparatus.

The process of beaming, breaking or fleshing hides, as usually performed is one of the most laborious operations in the business, and requires the workman to be constantly in contact with cold wet hides which is very injurious to the constitution, subjecting most operators to disease and forcing many to leave the business. Many attempts have been made to perform this operation by machinery, but none have proved effectual, nor are they to my knowledge now in use. By my invention I am enabled to work the most stubborn hides with ease and facility softening them perfectly and with more precision than can be done by hand, and with a rapidity vastly greater.

The construction of the machine is cheap and simple and is described below, reference being had to the letters on the drawing.

The frame consists of two broad uprights (*a*) connected near the bottom by two bed pieces (*b*) one on each side; said pieces project beyond the front upright far enough to sustain a frame for the carriage (*c*) to traverse on.

The carriage is an oblong platform placed at right angles to the main frame and made to traverse longitudinally by a windlass (*d*) at its center, the head of which projects in front. From around this windlass a cord extends to each end of the carriage. Along the front edge of the carriage a groove (*e*) is formed into which a bar (*f*) fits (this bar is shown with one end only in the groove in the drawing).

The hide is laid over the table, as denoted by the red lines, and comes down over the

front edge, the bar (*f*) is then pressed into the groove and fastened by which means the skin is held tight and by means of the apparatus for moving the table any part of said skin can be brought under a scraper, to be presently described.

A stout beam (*g*) is jointed into a mortise cut in the top of the rear upright and thence projects forward through a similar mortise in the front upright in which it can move up and down over the carriage, as clearly shown in the figure. A sliding frame (*h*) is connected with the front projecting end of said beam (*g*) and slides back and forth on it the width of the table of the carriage; the front end piece of the frame (*h*) extends down nearly to the table; directly behind this end piece a small block (*i*) is jointed to which a knife or scraper is connected. By this contrivance it will be seen that when the frame is drawn back the knife is brought down in contact with the hide on the table of the carriage, the block resting against the end piece, and on the return, the joint allows the block to double up so that the knife slides over without rubbing. To move the frame it is connected by a pitman (*k*) with a crank (*l*) on the upper part of an upright shaft (*m*) placed at the center of the main frame between the two uprights (*a*). Near the lower end of said shaft there is a fly wheel (*n*) for regulating the motion and aiding in scraping; and a pulley (*o*) is situated above it, by which the shaft receives its motion, from a band connected with the driving power.

To raise and lower the front end of beam (*g*) a lever (*p*) is connected with the front end of said beam as shown by dotted lines and runs back nearly parallel with it to the back of the frame; the fulcrum of this lever is in the front upright (*a*), its rear end is connected by a rod (*q*) to a treadle (*r*) below, shown by dotted lines, said treadle extends forward under the table or carriage and out beyond the front of the frame; by bearing this treadle down any required pressure is made upon the knife or scraper, and when the foot is removed the knife is raised above the table.

To operate this machine the knife is put in motion by the driving power, and the

carriage is moved along by hand as fast as the work is thoroughly done; thus it can be regulated with perfect exactness by the operator who has the whole under his eye.

5 Having thus fully described by improvements, what I claim therein as new, and desire to secure by Letters Patent, is—

1. The vibrating scraper, constructed, combined, and arranged substantially in the
10 manner and for the purpose set forth; the

pressure being regulated by the operative, while the scraper is driven by power.

2. I also claim in combination with the above, the movable table above described, on which the hides are fastened and are moved 15 under the knife.

ANTHONY SMITH.

Witnesses:

J. J. GREENOUGH,
J. N. THAYER.