No. 640,814. Patented Jan. 9, 1900.

J. W. ROGERS.

PROCESS OF EXTRACTING GREASE FROM SKINS.

(Application filed Apr. 28, 1899.)

(No Model.) 2 Sheets—Sheet 1.

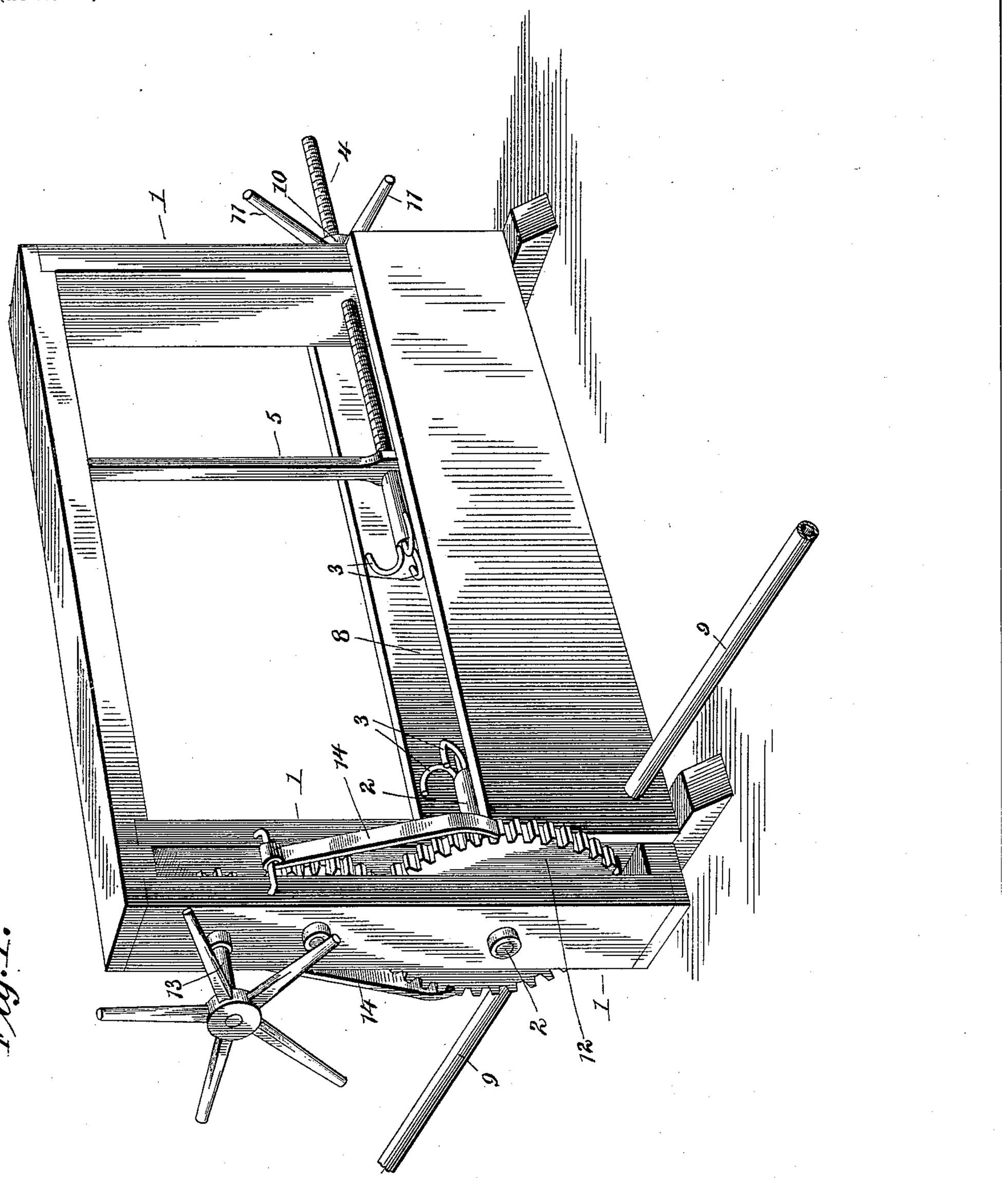

Fig. 1.

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Fig. 3,

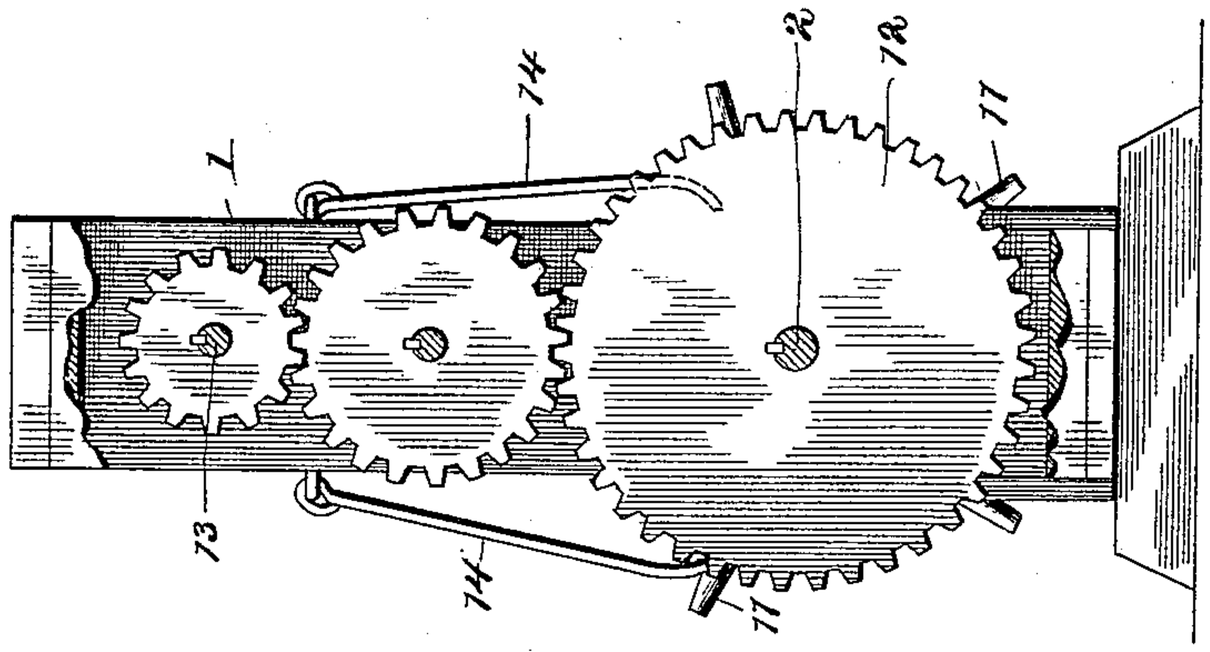
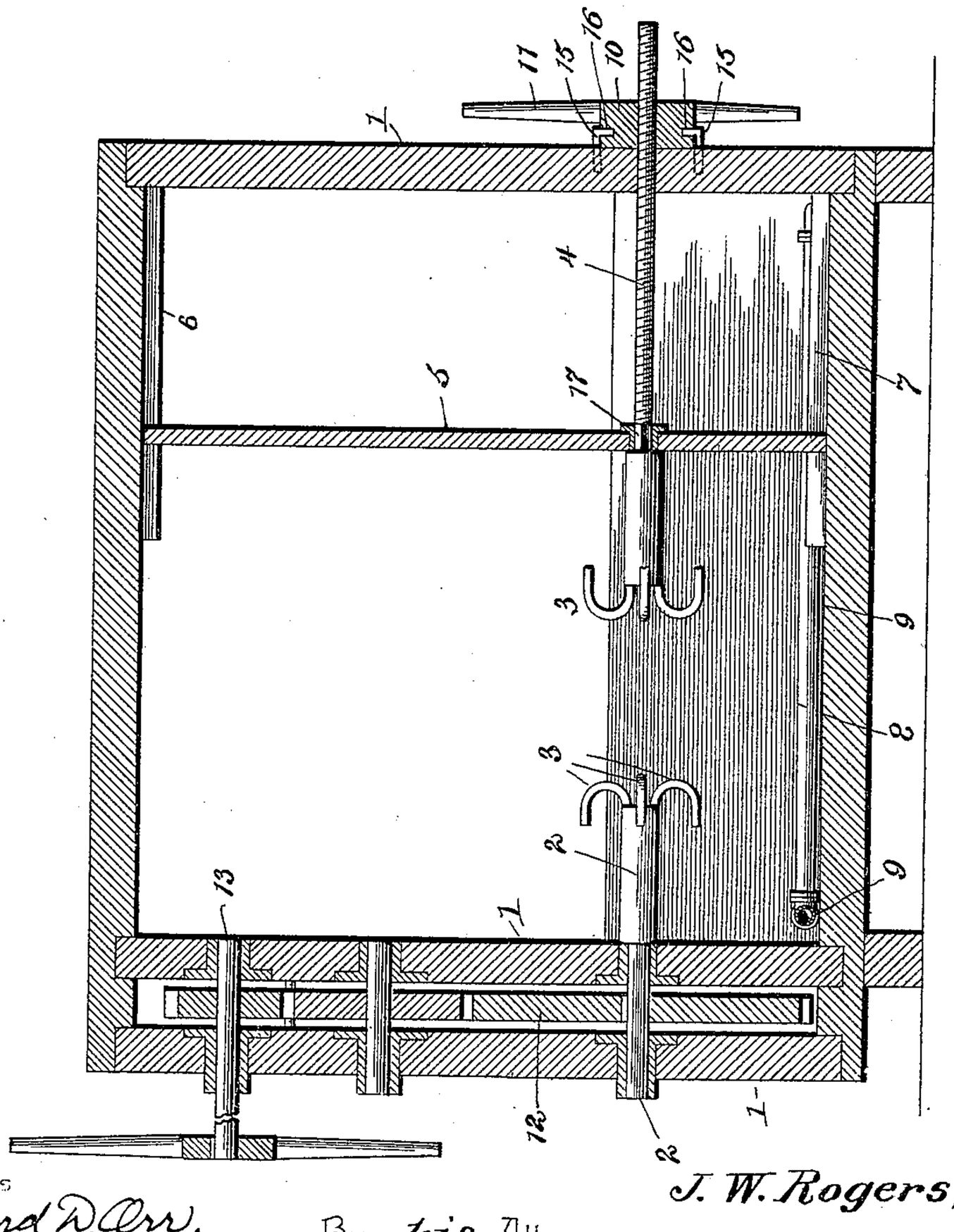


Fig. 2,



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UNITED STATES PATENT OFFICE.

JOSEPH W. ROGERS, OF GLOVERSVILLE, NEW YORK.

PROCESS OF EXTRACTING GREASE FROM SKINS.

SPECIFICATION forming part of Letters Patent No. 640,814, dated January 9, 1900.

Application filed April 28, 1899. Serial No. 714,801. (No specimens.)

To all whom it may concern:

Be it known that I, JOSEPH W. ROGERS, a citizen of the United States, residing at Gloversville, in the county of Fulton and State of New York, have invented a new and useful Machine for Extracting Grease from Skins, of which the following is a specification.

This invention relates to the art of leather-making, and particularly to processes for extracting the animal grease from the skins employed in the manufacture of the leather.

Heretofore the skins have been passed between pressure-rollers while exposed to the air, whereby the skins become dry and hard and the action of the rollers blisters the grain of the skins. Also the pores of the skins do not open sufficiently to permit of an effectual extraction of the grease.

In view of these disadvantages the present invention has for its object to provide an improved process whereby the skins are maintained at a proper temperature and in a moist condition, so as to open the pores thereof, and also to submit the skins to a pressure or strain which will not blister or otherwise damage the grain of the skins, but will tend to more thoroughly open the pores of the skins, and thereby effectually extract the grease.

To these ends the present invention consists in the peculiar treatment of the skins, as will be hereinafter more fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

Figure 1 is a perspective view of a skin-wringing machine constructed in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is an end view, partly in section.

Similar reference characters indicate corresponding parts in all the figures of the drawings.

In carrying out the present invention it is necessary to provide an apparatus for exerting a pressure upon the skins, and to fully illustrate the performance of the process I have shown the preferred embodiment of such an apparatus in the accompanying drawings, to which reference is now had. However, it will be understood that any form of apparatus may be employed which will exert a twisting action upon the skins, as will be hereinafter more fully described.

Arranged in a suitable frame, including standards 1, are wringing or twisting devices, including a spindle 2, having terminal grappling-hooks 3, and a feed-screw 4, also having terminal grappling-hooks and provided with a carrier 5, said carrier being fixed to the feed-screw and being terminally fitted in guides 6 and 7, formed in paralled horizontal members of the supporting-frame. The portion 17 of the screw 4 which passes through the carrier 5 is angular, so that the screw is prevented from turning upon the carrier. In the construction illustrated the wringing or twisting devices are disposed in and below the upper edge of the walls of a vat or receptacle 8, adapted to receive a preserving liquid, in which the skins are submerged while being subjected to the wringing or twisting operation. In the bottom of this vat or receptacle are arranged steam-circulating pipes 9, which serve to maintain the temperature of the preserving liquor at the proper degree for facilitating the extraction of the grease.

The feed-screw is operated by a feed-nut 10, having suitable handles or arms 11, and the wringing-spindle carries a gear 12, which is adapted through a suitable intermediate train of gears to receive motion from an operating-spindle 13, having an operating device consisting in the construction illustrated of an armed head. The nut 10 is connected to the adjacent standard 1 by means of T-shaped fastenings 15, which are driven into the outer face of the standard and have their transverse heads loosely received within an annular groove 16, provided in the nut 10, so that the latter may turn upon the screw 4 and is held in a relatively-fixed position against the standard. Pawls 14 are employed at opposite sides of the main gear for locking the same against backward motion in either direction.

In the manufacture of skins into leather after the hair and wool have been removed from the skins and the latter limed and worked they are placed in a preserving liquor composed of salt water and sulfuric acid or oil of vitriol, so as to prevent the skins from spoil-

ing while waiting for a market. The present invention is designed for treating skins after they have been taken from the preserving liquor and to remove the animal grease therefrom prior to the tanning process. Heretofore the skins have been exposed to the external air during the wringing or twisting process, and in cold weather the skins become dry, thereby requiring a much longer time to extract the grease, and, furthermore, the latter is but imperfectly extracted. By the employment of a vat containing a preserving liquor in which the skins are submerged, as hereinbefore described, it will be seen that the skins are maintained in a soft and pliable condition, thereby rendering the wringing or twisting thereof more effective, and the steam-pipes also maintain the liquor and the skins at the proper normal condition, and thereby facilitating the extraction of the animal grease. It will be understood that the preserving liquor which is employed during the wringing of the skins is of the same nature as that in which the skins were originally placed while awaiting a market.

From the foregoing disclosure of the present process it will be apparent that the skins are maintained at a proper temperature and in a moist condition by being submerged in the heated liquor, so that the skins are rendered pliable, and thereby not liable to break or crack during the twisting operation. Also the pores of the skins are opened by the liquor, and thereby permit of an effectual escape of the grease. Furthermore, the twisting or torsional strain elongates or opens the pores without blistering or otherwise damaging the grain of the skins. As the skins are submerged and maintained at a proper temperature during the twisting operation, the performance of the process may be carried on in all kinds of weather and under various conditions without affecting the result of the final condition of the product. The skins remain immersed in the liquor throughout the twisting thereof, and as the grease is extracted it is received by the liquor and carried from the skins.

Having described my invention, what I claim is—

1. The herein-described process of extracting animal grease from skins, consisting in twisting the latter while submerged.

2. The herein-described process of extracting animal grease from skins, consisting in twisting the latter while submerged, and maintaining the skins at a predetermined temperature.

3. The herein-described process of extracting animal grease from skins, consisting in twisting the latter while submerged in a heated liquor.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOSEPH W. ROGERS.

Witnesses:
P. CLANCY,
ED. L. BÉVIER.