P. BOHAČEK.

STAKING MACHINE.

APPLICATION FILED MAR. 16, 1912.

1,039,016.

Patented Sept. 17, 1912.

2 SHEETS—SHEET 1.

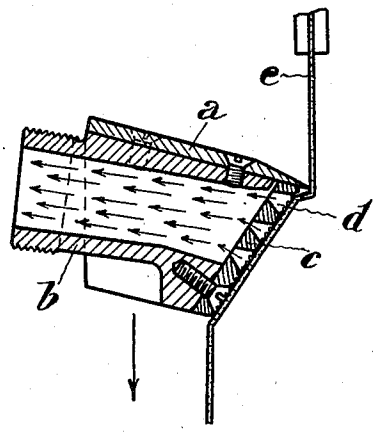

Fig. 1.

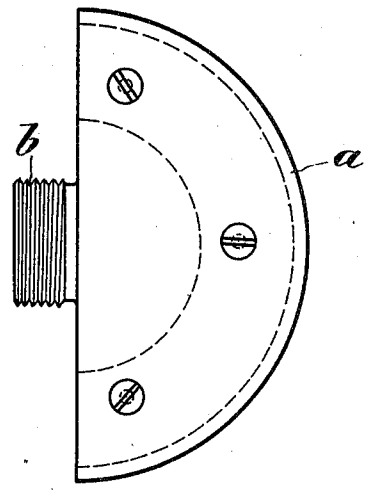

Fig. 2.

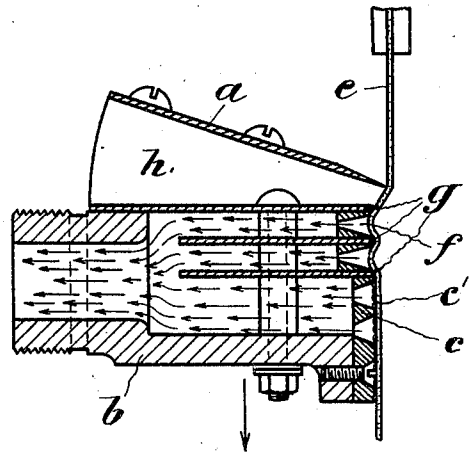

Fig. 3.

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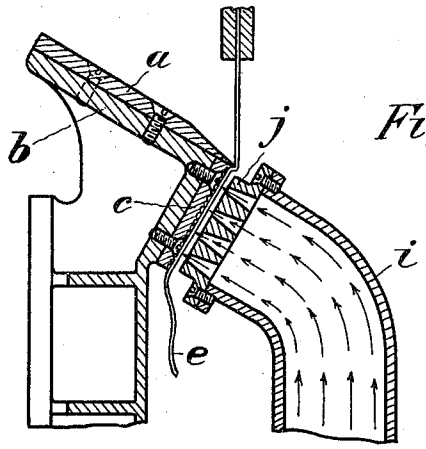


Fig. 4.

Fig. 5.

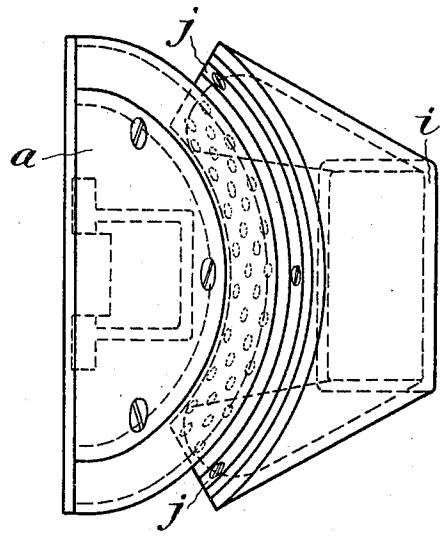
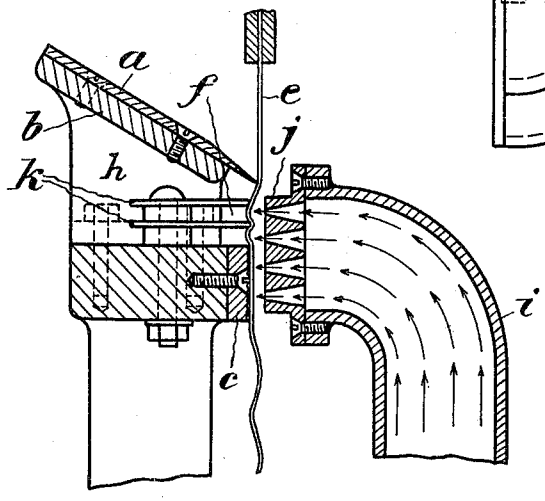


Fig. 6.



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STAKING-MACHINE.

1,039,016. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed March 16, 1912. Serial No. 684,235.

To all whom it may concern:

Be it known that I, PAUL BOHAČEK, a subject of the Emperor of Austria-Hungary, residing at 63 Moltke allee, Frankfort-on-the-Main, in the Kingdom of Prussia and Empire of Germany, have invented new and useful Improvements in Staking-Machines, of which the following is a specification.

My invention relates to a machine for staking glacé and other small skins and hides and has chiefly for its object to enable the same to be worked in such a manner as to obtain all the essential advantages of hand-work.

Several embodiments of my said invention are illustrated by way of example in the accompanying drawings in which:—

Figure 1 is a vertical section of a construction designed for drawing the skin against a nozzle friction plate. Fig. 2 is a plan of the same. Fig. 3 a vertical section of a modification of Fig. 1. Fig. 4 represents a vertical section of another constructional form of the invention designed for forcing the skin against a friction-plate by means of compressed air. Fig. 5 is a plan of the same. Fig. 6 shows a vertical section of a modification of Fig. 4.

Similar letters refer to corresponding parts throughout the several views.

Referring to the drawings Figs. 1 and 2, *a* is a staking-blade secured to a rigid tubular support *b* in such a manner as to allow of adjustment in relation to a friction-plate *c*. The support *b* takes the form of an air-nozzle and is adapted to be connected at its rear end to a suitable vacuum or suction apparatus. The friction-plate *c*, secured at the mouth of this support by set-screws, is arranged either vertically or at any convenient angle and possesses a number of tapered apertures *d*. By preference these apertures taper toward their inner end so that the skin *e* which covers the apertures may present a comparatively large suction surface, while the amount of air used is reduced to a minimum by the small diameter of the inner end of the aperture. The outer surface of this friction-plate *c* is provided with a series of small horizontal serrations c^1.

In order to facilitate the staking operation, both the blade *a* and the friction-plate *c* are curved, but may also be straight.

When the nozzle forming the support *b* is coupled to and put under the action of the aforesaid vacuum apparatus, the skin *e*, which has previously been hanging down loosely, is caused to be pressed against the serrated friction-plate *c*, thereby producing considerable resistance to the skin and at the same time presenting it to the edge of the staking-blade *a* at the most effective angle for obtaining the desired result. To the blade *a* and its nozzle-shaped support *b* is imparted an up-and-down motion, as indicated by the arrow in Fig. 1, by any suitable mechanism (not represented).

In the modification shown in Fig. 3, the friction-plate *c* is provided with two sets of serrations c^1 and *f*; the upper serrations *f*, which are much more pronounced than the serrations c^1 take the form of grooves having apertures at their base leading to the interior of the nozzle-shaped support *b*, thereby enabling the skin *e* to take a wave-like form before it is led to the staking-blade *a*. In this manner an adequate amount of friction or preliminary tension is given to the skin, which is then presented to the staking-blade *a* at the desired angle, at the same time allowing the skin in contact with the friction-plate *c* to remain practically vertical. Between the staking-blade *a* and its carrier *b* are clearance passages *h* through which the waste produced in the staking operation may be led off.

In the embodiment of my invention as represented in Figs. 4 and 5, which uses compressed air in lieu of a vacuum, a nozzle *i*, which carries at its discharge-end a nozzle-plate *j* furnished with tapered apertures, and is adapted to be connected to a compressed-air chamber, (not shown) is rigidly secured to an extension of the staking-blade support *b* so as to leave a narrow intermediate space between the said friction-plate *c* and the nozzle-plate *j* for the passage of the skin *e*, which is introduced into this passage with its grain side turned toward the said plate *j*. The skin is forced against the friction-plate *c* by the impingement of the air current upon its grain side. In this case also the staking-blade *a*, the friction-plate *c* and the nozzle-plate *j*, may be either curved or straight.

In the constructional form shown in Fig. 6, which is also designed for operation by com-

pressed air, the friction-plate *c* situated under the staking-blade *a* is provided with a number of serrations, but has no apertures therein. Above these serrations are separately mounted metal plates *k* over which the skin is drawn.

The above described invention realizes a considerable advantage through only the flesh side of the skin being brought in contact with the staking-blade, the skin being conducted to the said blade at any desired angle and receiving the required preliminary tension.

By a suitable regulation of either the vacuum or the compressed air, the tension under which the skin is being worked may be varied within comparatively wide limits.

I claim:—

1. In a machine of the character described the combination, with a staking-blade, of a friction-plate, and means for causing the skin to be forced by air-pressure against the said friction-plate.

2. In a machine of the character described the combination, with a staking-blade, of a friction-plate provided with horizontal serrations, and means for causing the skin to be forced by air-pressure against the said friction-plate.

3. In a machine of the character described the combination, with a staking-blade, of a friction-plate having horizontal grooves and intermediate edges, and means for causing the skin to be forced by air-pressure against the said friction-plate.

4. In a machine of the character described the combination of a staking-blade, a support for the same, a friction-plate attached to the said support at an inclination to the vertical plane, and means for causing the skin to be forced by air-pressure against the said friction-plate.

5. In a machine of the character described the combination of a staking-blade, a support for the same arranged so as to leave a clearance passage between it and said blade, a friction-plate attached to the said support at an inclination to the vertical plane, and means for causing the skin to be forced by air-pressure against the said friction-plate.

6. In a machine of the character described the combination with a staking-blade, of a blade-support forming an air passage, and a friction-plate provided with apertures terminating in the said air passage.

7. In a machine of the character described the combination, with a staking-blade, of a blade-support forming an air passage, and a friction-plate provided with tapered apertures terminating in the said air passage.

8. In a machine of the character described the combination, with a staking-blade support forming an air passage, and a friction-plate having horizontal grooves formed in its working surface and provided with apertures tapering down from the said working surface to their inner end.

9. In a machine of the character described a staking-blade of curved form, an inclined blade-support forming an air passage, a friction-plate arranged at an inclination to the vertical plane, and having horizontal grooves formed in its working surface and provided with apertures tapering down from the said working surface, to their inner end.

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Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."