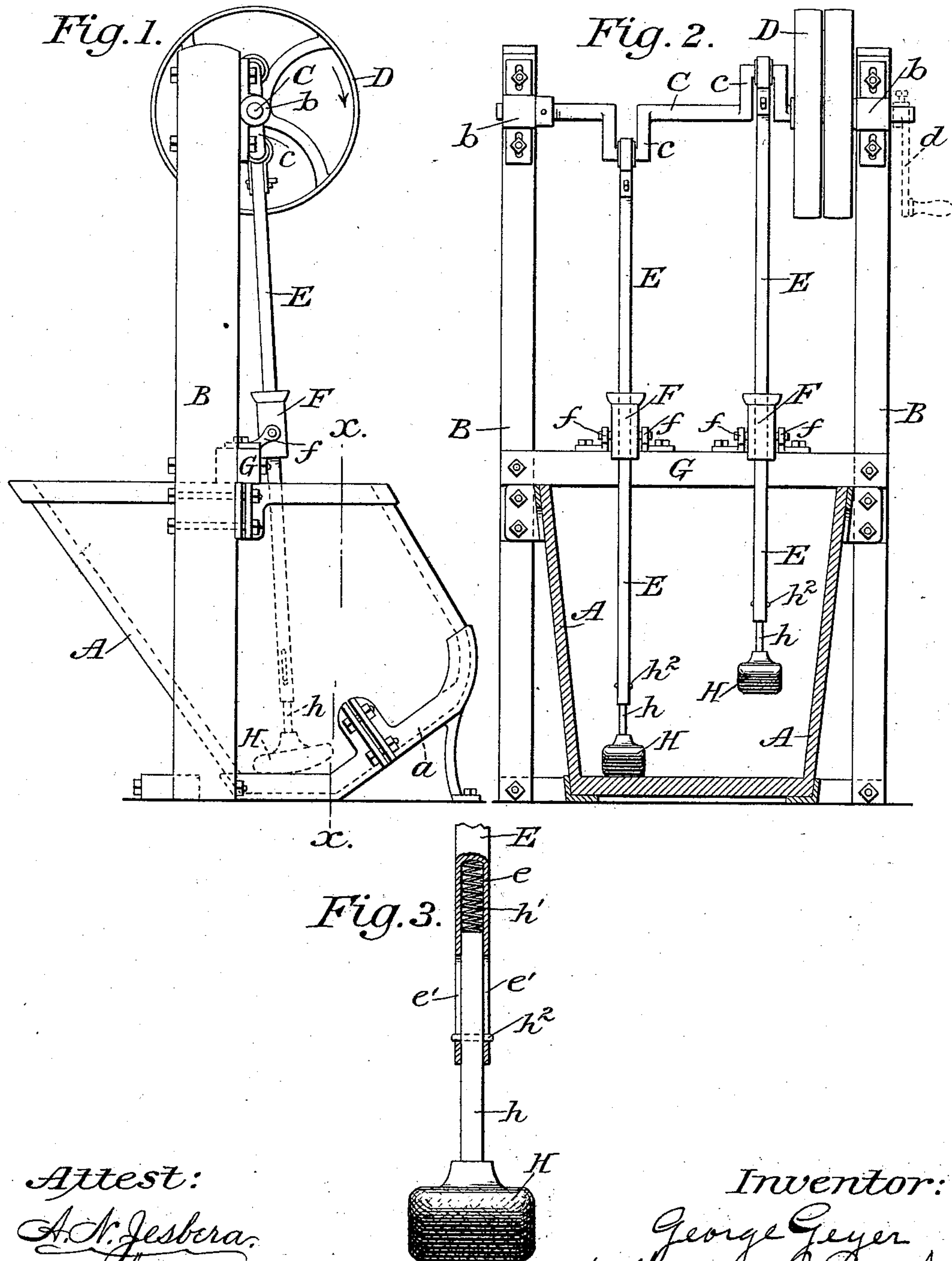


(No Model.)

G. GEYER.
MACHINE FOR SOFTENING SKINS.

No. 531,462.

Patented Dec. 25, 1894.



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UNITED STATES PATENT OFFICE.

GEORGE GEYER, OF BROOKLYN, NEW YORK.

MACHINE FOR SOFTENING SKINS.

SPECIFICATION forming part of Letters Patent No. 531,462, dated December 25, 1894.

Application filed October 3, 1894. Serial No. 524,798. (No model.)

To all whom it may concern:

Be it known that I, GEORGE GEYER, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Machines for Treating Skins; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

In the preparation of skins or pelts for furrers the skins or pelts are subjected to a "tubbing" operation for the purpose of softening them and rendering them pliable prior to their being placed upon the stretching boards or frames. This "tubbing" or softening of the skins or pelts is commonly effected by placing them in a suitable receptacle with sawdust and treading or trampling them with the bare feet. When properly performed this process is effective but it is long and tedious. It is the object of this invention to provide a machine which shall accomplish the same result more expeditiously and more uniformly while at the same time it imitates closely the action of the bare feet.

The mechanism in which the invention is embodied will be described in detail with reference to the accompanying drawings, in which—

Figure 1 is an end elevation of the machine. Fig. 2 is a front elevation, the tub or receptacle being shown in section; and Fig. 3 is a detail view illustrating the mode of connection of a foot or pounder to its actuating rod.

The skins or pelts to be treated are placed in a suitable tub or receptacle A which may be of any desired form or construction but is provided with an inclined bottom as indicated at *a*. The tub is secured to a stout framework B which at its upper end has bearings *b, b*, for a crank shaft C which may be rotated by any suitable means, as through the medium of a pulley D. The shaft may also be provided with an actuating crank *d* so that the machine may be driven by hand. The shaft may be provided with any suitable number of cranks *c, c*, two being represented in the drawings. Upon each crank is mounted

an actuating rod or bar E which slides through a guide F pivoted in suitable bearings *f, f*, secured to a cross beam G. Each bar E carries at its lower end the foot or pounder H which acts directly upon the skins or pelts in co-operation with the inclined bottom *a* of the tub A. The foot H is not rigidly attached to the bar E but in such a manner as to have capacity for an elastic movement.

As represented clearly in Fig. 3 the foot H has a stem *h* which enters a longitudinal hole *e* in the bar E. A spring *h'* is interposed between the inner end of the hole and the end of the stem *h* to afford an elastic seat for the foot as well as to give movement outwardly and the outward movement is limited by a pin *h²* fixed in the stem *h* and traveling in slots *e'* through the walls of the hole *e*.

The direction of rotation of the crank shaft being as indicated by the arrow in Fig. 1 and the foot H resting at the bottom of the tub A when the parts are in the position represented in Fig. 1 it will be apparent that when motion is imparted to the crank shaft the foot H will slide upward upon the inclined bottom *a* during a portion of the rotation of the shaft, being held thereto by the spring *h'*, and will then be swung clear of the inclined bottom and will be returned to the position indicated in Fig. 1. As the several cranks are preferably set in different positions the several feet will act in succession. The skins or pelts which may have been placed in the bottom of the tub with the sawdust are in this manner rubbed and pounded as much as they would be by the feet of a man.

The feet H, H, of the mechanism may be of metal with the surface uncovered or of any suitable material with the surface roughened or shod or covered with any other material.

I am aware that stamp mills for treating ore and the like have heretofore been constructed with a crank shaft and feet or pounders operated thereby, such feet or pounders being loosely connected to their carrying means and springs being sometimes interposed between the cranks and the pounders. In all of such machines, however, so far as I am aware, the feet or pounders move vertically and do not have, as the feet or pounders of my machine have, a compound swinging

and vertical movement which imitates closely the movement of the feet in treating skins in the manner heretofore practiced. It will be observed that the rods or bars of my machine
5 which carry the feet or pounders are themselves directly connected to the cranks and slide through stationary guides which permit the rods or bars to swing or vibrate upon a fixed axis at the same time that they slide
10 longitudinally. Moreover, the skins or pelts under treatment are supported upon an inclined bottom which conforms substantially to the path of movement of the pounders in the lower half of their orbits.

15 I claim as my invention—

1. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, said receptacle having an inclined bottom a crank shaft, an actuating rod or bar mounted on the crank shaft,
20 a guide for said rod or bar through which it may slide and in which it may at the same time vibrate, and a foot or pounder carried by said rod or bar, whereby said foot or
25 pounder has a compound vertical and swinging movement and during part of its movement follows substantially the inclination of the bottom substantially as shown and described.

30 2. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, a crank shaft, an actuating rod or bar mounted on the crank shaft, a guide for said rod or bar through which it
35 may slide and in which it may at the same time vibrate, a foot supported by said bar to be movable longitudinally with respect thereto and means to limit the movement of said

foot with respect to the bar, substantially as shown and described. 40

3. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, a crank shaft, an actuating rod or bar mounted on the crank shaft,
45 a guide for said rod or bar through which it may slide and in which it may at the same time vibrate, a foot supported by said bar to be movable longitudinally with respect thereto, and a spring interposed in the connection between the foot or pounder and its rod or
50 shaft, substantially as shown and described.

4. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, a crank shaft, an actuating rod or bar mounted on the crank shaft,
55 a foot having a stem to enter a longitudinal hole in said bar, a spring to press said foot outwardly and means to limit the movement of the foot with respect to the bar, substantially as shown and described. 60

5. In a machine of the character described, the combination of a receptacle for the skins or pelts to be treated, said receptacle having an inclined bottom, a crank shaft, an actuating rod or bar mounted on the crank shaft,
65 and a foot supported by said bar to be movable longitudinally with respect thereto, substantially as shown and described.

In testimony whereof I have signed my name to this specification in the presence of
70 two subscribing witnesses.

GEORGE GEYER.

Witnesses:

A. N. JESBERA,
A. WIDDER.