

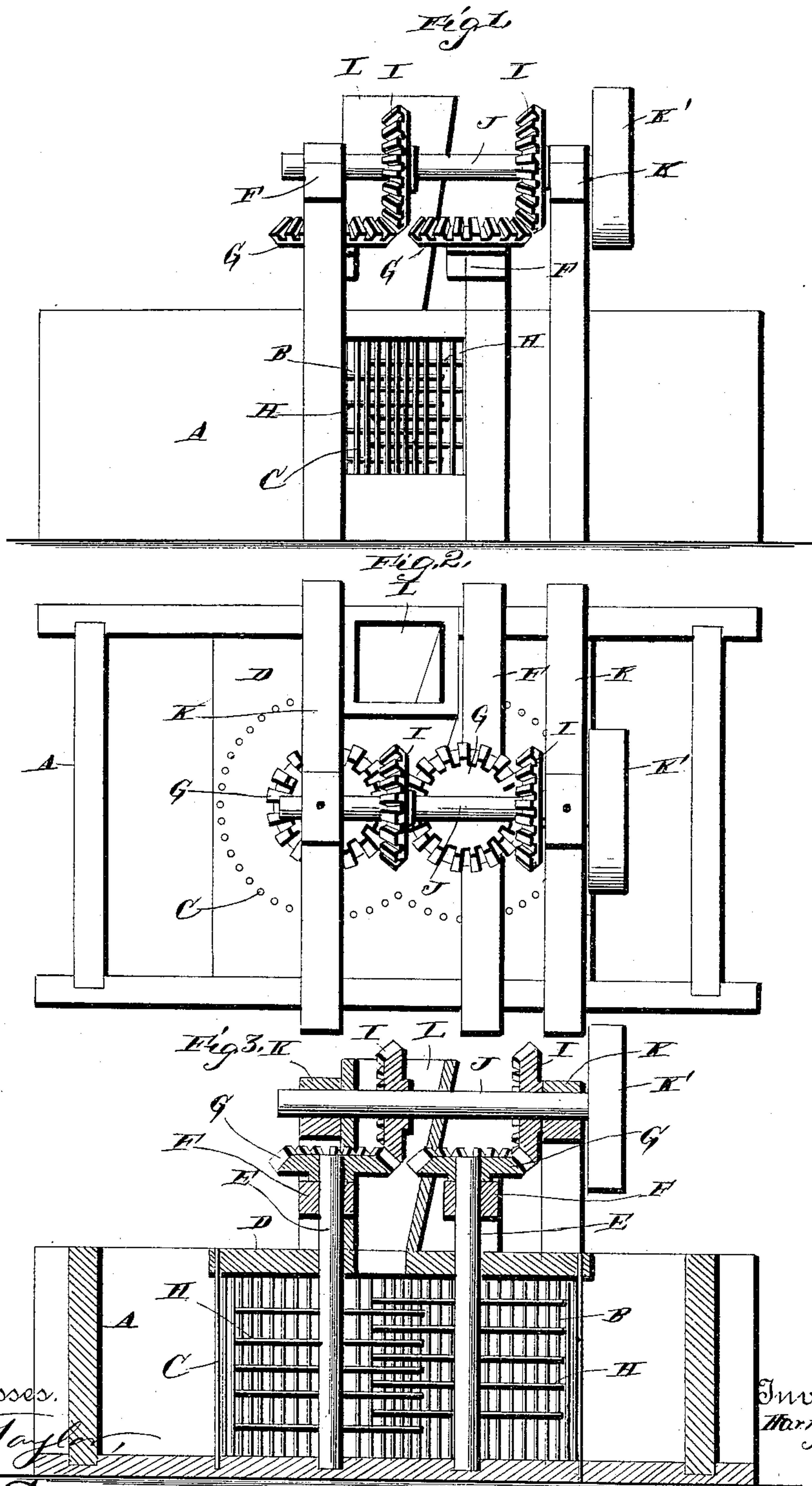
(No Model.)

H. BRIGHT.

MACHINE FOR WASHING AND SEPARATING HAIR.

No. 389,191.

Patented Sept. 11, 1888.



Witnesses.

C. B. Taylor,

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UNITED STATES PATENT OFFICE.

HARRY BRIGHT, OF WARREN, PENNSYLVANIA.

MACHINE FOR WASHING AND SEPARATING HAIR.

SPECIFICATION forming part of Letters Patent No. 389,191, dated September 11, 1888.

Application filed January 19, 1888. Serial No. 261,255. (No model.)

To all whom it may concern:

Be it known that I, HARRY BRIGHT, a citizen of the United States, residing at Warren, in the county of Warren and State of Pennsylvania, have invented new and useful Improvements in Machines for Washing and Separating Hair, of which the following is a specification.

My invention relates to improvements in machines for washing and separating the hair taken from hides in the process of tanning; and it consists in certain novel features, hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of my improved machine. Fig. 2 is a top plan view thereof, and Fig. 3 is a central longitudinal section.

Referring to the drawings by letter, A designates the water-tight box or vat, within which, at about the center thereof, I erect a cage, B, formed of vertical bars or rods C, having their lower ends secured in the base or bottom of the box or vat, and their upper ends secured in a top plate or cross beam, D, at the top of the vat. These vertical rods C are formed in an approximately elliptical series, as shown in Fig. 2, and within the cage I erect two parallel shafts, E E, which have their lower ends journaled in the bottom of the vat and their upper ends extended above the top of the vat and journaled in cross-beams F, secured to posts erected at the sides of the vat. On the upper ends of the shafts I mount the bevel gear-wheels G, which will be presently more particularly referred to, and on the lower portion of said shafts I provide the lateral beater-arms H. These arms H project from the shafts in parallel series, and are secured to the different shafts in different planes, so as to readily pass each other when the shafts are revolved. These beater-arms are of such a length as to extend nearly to the vertical rods constituting the cage, so as to thoroughly agitate all the material operated upon, as will be presently described.

The bevel gear-wheels G are driven by gear-wheels I, mounted upon a shaft, J, which is journaled in cross-beams K, suitably supported above the vat. The bevel gear-wheels I, meshing with the wheels G, are so arranged as to rotate both of said wheels in the same

direction, thereby causing the beater-arms H to act in opposition to each other where the respective circles described by them intercept. On one end of the shaft J, I secure a band-pulley, K, by means of which power is applied to the machine.

L is a hopper provided at the top of the vat, which receives the material to be operated upon and from which said material passes into the cage.

In practice, the hair removed from hides in the process of tanning collects and forms into compact and solid balls, and the object of my machine is to separate the fibers composing these balls without cutting or injuring the same, which has heretofore been a matter of great difficulty and labor. The balls are placed in the hopper and pass from the same into the cage, where they are acted upon by the beaters. A stream of water is kept flowing constantly through the tank or vat, and entirely fills the same. This water softens the hair, which is thoroughly agitated by the beaters and the bars composing the cage, and the fibers thereby effectually separated. The water washes the separated fibers, which rise rapidly to the surface of the water, where they may be readily gathered by hand or a suitable implement, or, if so desired, be carried to a suitable place of deposit by the water.

It will be seen from the foregoing description that I have provided a very simple and efficient device, and its advantages will be readily appreciated.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a machine for washing and separating hair, the combination of the vat, a cage within the same, the said cage being composed of parallel vertical rods, beaters within the cage, and means for operating said beaters, as set forth.

2. In a machine for washing and separating hair, the combination of the vat, a cage within the same, beaters within the cage, and means for operating the beaters, the said beaters, consisting of vertical shafts and parallel arms extending from the shafts to near the cage, substantially as specified.

3. In a machine for washing and separating

hair, the combination of the vat, a cage within
the same, the beaters within the cage, the
gear-wheels G on the upper ends of the beater-
shafts, the shaft J, the gear-wheels K on said
5 shaft meshing with the wheels G, and the
band-pulley on the end of said shaft, substan-
tially as specified.

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

HARRY BRIGHT.

Witnesses:

CHAS. DINSMOOR,
LOTEN A. DINSMOOR.