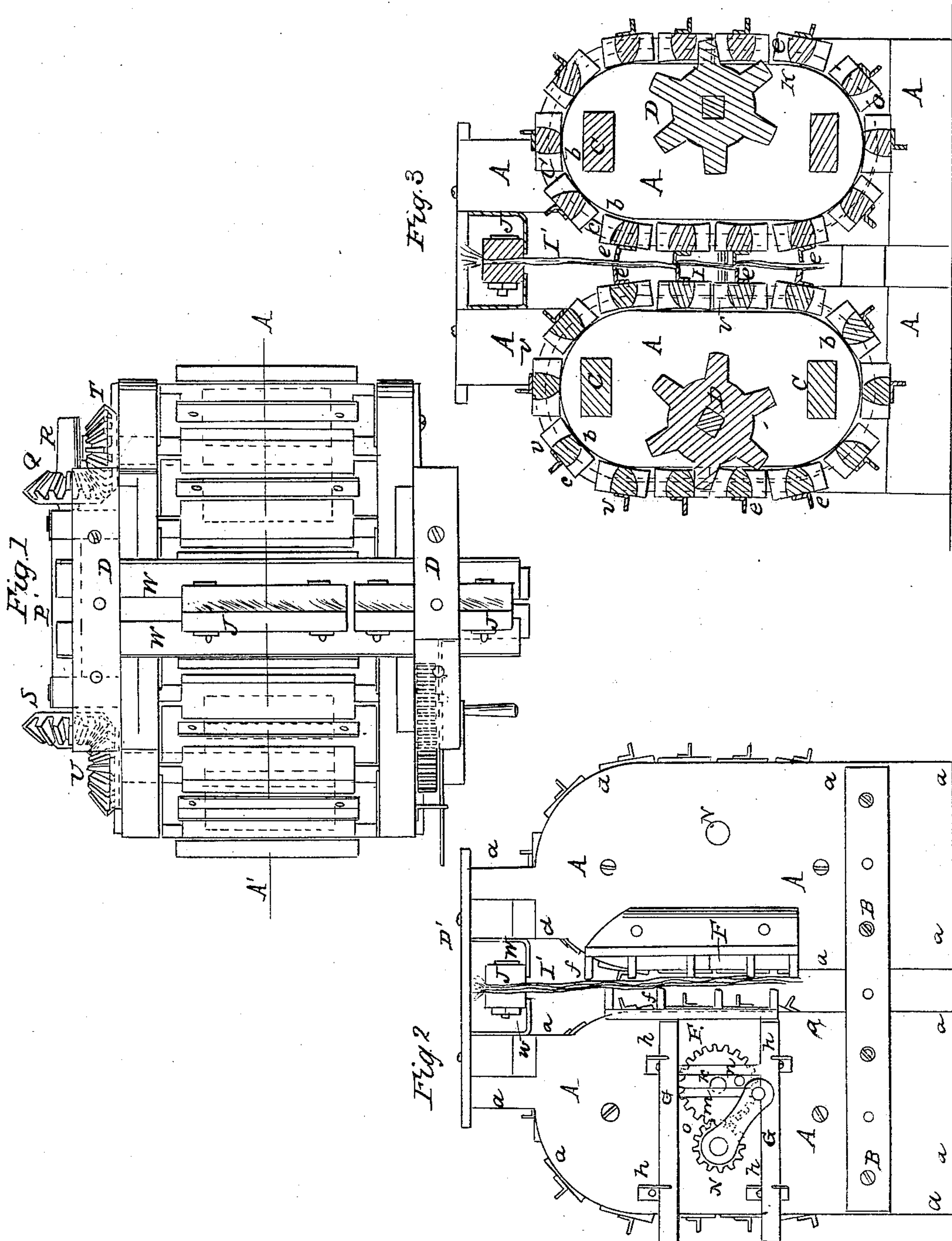


R. DODSWORTH.

Hemp Brake.

No. 31,375.

Patented Feb. 12, 1861.



WITNESSES
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UNITED STATES PATENT OFFICE.

ROBERT DODSWORTH, OF ST. LOUIS, MISSOURI.

IMPROVEMENT IN HEMP-BRAKES.

Specification forming part of Letters Patent No. 31,375, dated February 12, 1861.

To all whom it may concern:

Be it known that I, ROBERT DODSWORTH, of the city and county of St. Louis, and State of Missouri, have invented a new and useful Improvement in Hemp-Brakes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a top view of my said invention; Fig. 2, a side elevation thereof; and Fig. 3 is a vertical longitudinal section taken on the line A' A'.

The following description of my invention will enable any one skilled in the arts to which it appertains to make and use the same.

Similar letters of reference represent corresponding parts of the different figures of the drawings annexed.

In the drawings, A represents two distinct and separate frames, each of which consists of two flat side pieces composed of heavy plank or metal, made in the form shown by the circumscribing lines *a a*. In the inside of these frame-pieces parallel grooves with circular ends are made, as shown by the dotted line *c* and the full line *d*. These frame-pieces, after being so grooved, are united by means of cross-ties C, so as to form the two complete separate frames above mentioned. These distinct frames, being so made as aforesaid, are united by means of ties B D', the one of which is applied against the outside of the frames near the bottom and the other across the top of the two frames. There are a number of holes made in these ties, so that the frames A A can be adjusted near each other or far apart, as the case may require. Thus much for the frames and the manner of uniting them. The breakers which crack the stalk are shown by E and F. The breaker E is stationary, it being bolted against the side of the frame in the manner shown; but the breaker F has a reciprocating motion. It is supported in brackets *h h*, bolted to the outside of the frame. F represents only the head of this brake, which is fixed upon a pair of parallel slides, G G, which slides are united by a center piece, K, which has a slot cut in the center thereof, into which the pin *u* works, which pin is fixed in the wheel *m*, whereby the said brake receives the reciprocating motion aforementioned. The jaws of the brake are shown by *f f*, and the hemp-stalk is represented by I'.

Before the hemp is introduced into the machine it is put up in bundles and secured be-

tween clamps J J. These clamps are then introduced in a gangway, W, made between the two frames (of wood or sheet metal) in the manner shown, one part of the gangway being fixed to each one of the frames, so as to leave an open space between them for the stalks to pass through. The stalks being secured in manner aforesaid, the clamps are introduced in the gangway (on the side where the breakers are located) and after being broken are shoved farther in the gangway by the introduction of a succeeding clamp, and so on, the breakers cracking the stalk as fast as they are introduced between them. Thus much for the breaking part of the apparatus. Now, after the stalks have been broken in manner aforesaid it is necessary to strip the husks from the fiber. This is done by the strippers *e e e*, fixed on bars *b b b*, the end of which are placed in the parallel grooves made in the inside of the frame-pieces aforesaid, the outlines of which are shown by the dotted lines *c* and the full line *b*. (Shown in Fig. 3.) These strippers are all separate from each other, and they are made to travel through the groove aforesaid by the action of the cog-wheels D, which wheels are fixed on shafts N N, on the end of which the bevel-wheels U and T are fixed. These bevel-wheels mesh in corresponding bevel-wheels, S Q, which are fixed upon the shaft P, the said shaft having a parallel end, R, so that the wheel Q can be shoved out when the frames are placed farther from each other than now shown in the drawings. When the machine is in motion, the strippers move in unison with each other, and thus strip the husks from the fiber as fast as the stalks are broken, and the clamps are pushed forward through the gangway.

The power to operate my machine is applied to the pinion O on the shaft N, on the opposite end of which the wheel U is fixed, through which the motion is conveyed to the other part of the machine.

Having thus described the construction and operation of my hemp-brake, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement of the frames A A, the breakers E F, the strippers *e e e* on the *b b b*, and the gangway W, the whole to be arranged jointly and operated in the manner described.

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