

# WILSON & FLETCHER.

## Hemp Brake.

No. 24,966.

Patented Aug. 2, 1859.

FIG. 1

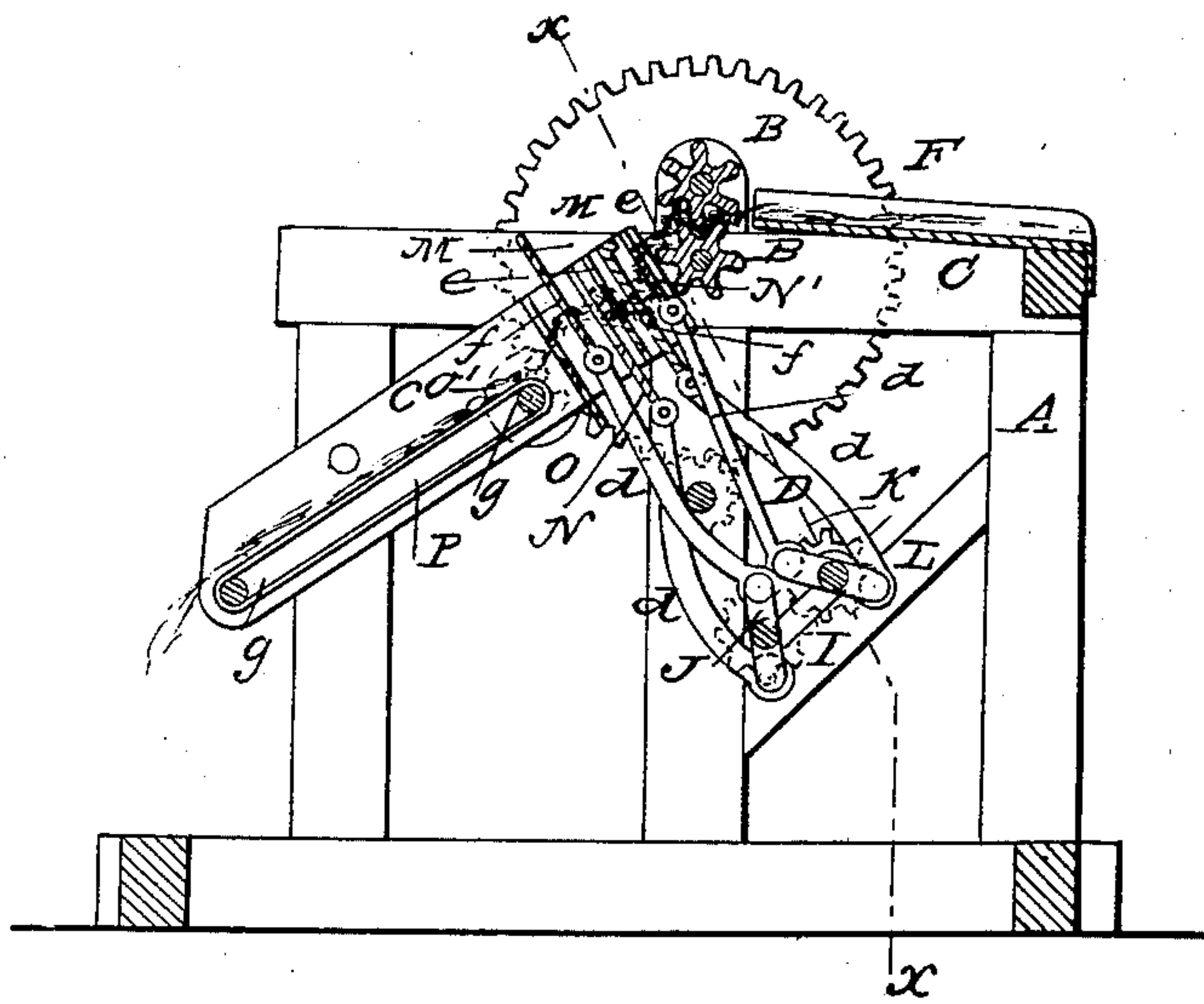
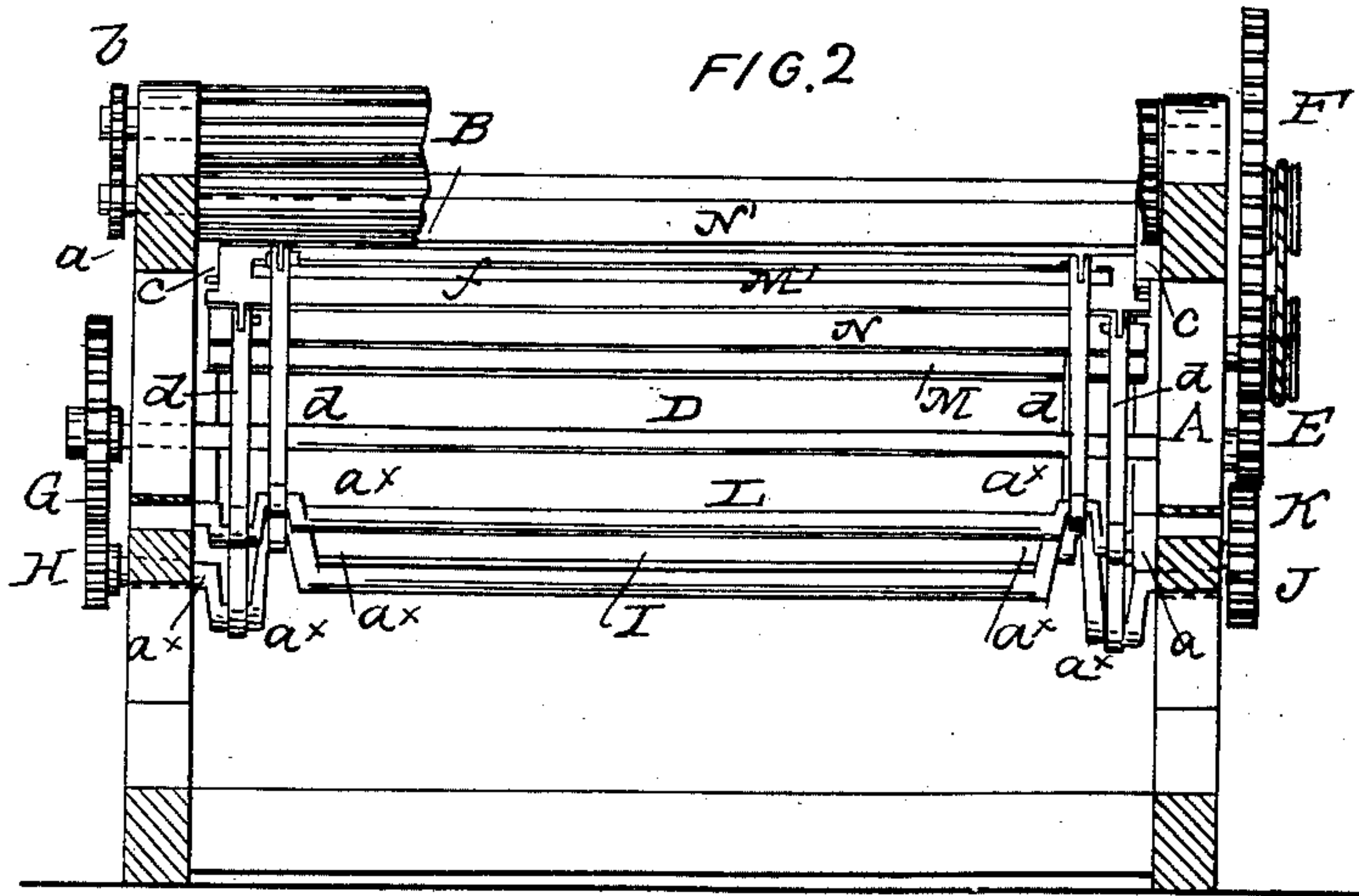


FIG. 2



WITNESSES

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ALLEN WILSON AND GEO. C. FLETCHER, OF ST. THOMAS, MISSOURI.

## IMPROVEMENT IN HEMP-BRAKES.

Specification forming part of Letters Patent No. 24,966, dated August 2, 1859.

*To all whom it may concern:*

Be it known that we, ALLEN WILSON and GEORGE C. FLETCHER, both of St. Thomas, in the county of Lafayette and State of Missouri, have invented a new and Improved Machine for Breaking, Dressing, and Cleaning Hemp; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a transverse vertical and central section of our invention. Fig. 2 is a longitudinal section of the same, taken in the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts in the two figures.

To enable those skilled in the art to make and use our invention, we will proceed to describe its construction and operation.

A represents a framing, which may be constructed in any proper manner to support the working parts.

B B are two rollers, which are placed one over the other in the same plane, said rollers being toothed or corrugated longitudinally, and gearing into each other, as shown clearly in Fig. 1. The rollers B B extend the whole width of the framing, and are placed directly in front of a feed-board, C.

In the framing A, and some distance below the rollers B B, a shaft, D, is placed, said shaft being parallel with the rollers. On one end of this shaft a pinion, E, is placed, said pinion gearing into a spur-wheel, F, which is placed on one end of the shaft of the lower roller B. The opposite end of this roller-shaft has a pinion, *a*, placed on it, which pinion gears into a corresponding pinion, *b*, on the upper roller-shaft. (See Fig. 2.) By this gearing motion is communicated to the rollers B B from the shaft D. At one end of the shaft D—the end opposite to that where the pinion E is placed—there is secured a toothed wheel, G. This wheel G gears into a pinion, H, which is placed at one end of a shaft, I, the opposite end of said shaft having a pinion, J, on it, which pinion gears into a corresponding pinion, K, on a shaft, L. The two shafts I L have each two cranks, *a*<sup>x</sup>, on them at each end, each pair of cranks being placed in opposite positions, and all the cranks of each shaft being in the same plane, but

those of one shaft being in a plane oblique to those of the other shaft, as clearly shown in Fig. 1.

In the framing A, at each side of it, a board, *c*, is placed obliquely, and between these two boards plates M M' N N' O O' are placed. The plates O O' are stationary, but the others are movable, having a reciprocating motion, and connected by rods *d* to the cranks *a*<sup>x</sup>. The rods *d* of the plates M N are connected to the cranks of the shaft I, while the rods of the plates M' N' are connected to the cranks of the shaft L. The stationary plate O is placed between the plates N M', and the stationary plate O' is placed at the outer side of the plate M. The ends of the movable or reciprocating plates M M' N N' are fitted in grooves *e* in the boards *c c*, and the plates M M' are slotted longitudinally nearly their whole length, as shown at *f*.

P is an endless apron, which works over rollers *g* between the boards *c c*, said apron having an inclined position in common with the boards, as shown clearly in Fig. 1. The endless apron is driven by a cord or belt, *h*, from the shaft of the upper roller B.

The operation is as follows: Power is communicated to the shaft D in any proper manner, and the hemp (shown in red) is placed on the feed-board C, and is fed by hand to the rollers B B, the hemp passing between the rollers, and the woody portion being broken thereby. The broken hemp passes over the reciprocating plate N', through the slot *f* in the plate M', over the stationary plate O' and reciprocating plate N, and through the slot *f* in the reciprocating plate M, and over the top of the stationary plate O on the endless apron P. From the relative position of the cranks *a*<sup>x</sup> it will be seen that the plates M N move simultaneously in opposite directions, and also the plates M' N'. These movements of the reciprocating plates, in connection with the stationary plates O O', perform the office of "scutch-blades," and completely remove the woody matter, the fiber passing on the endless apron P.

We do not claim reciprocating plates, beaters, or swords for scutching hemp, for they have been previously used, although, so far as we are aware, they have been arranged and operated in a different way from that herein shown and described. Neither do we claim

toothed or corrugated rollers for breaking hemp, for they have been previously used; but,

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The arrangement and combination of the plates M M' N N' O O', each pair of plates M M' N N' moving in opposite directions through

the medium of double cranks upon shafts I L, all as and for the purposes herein shown and described.

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Witnesses:

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J. E. HITT.