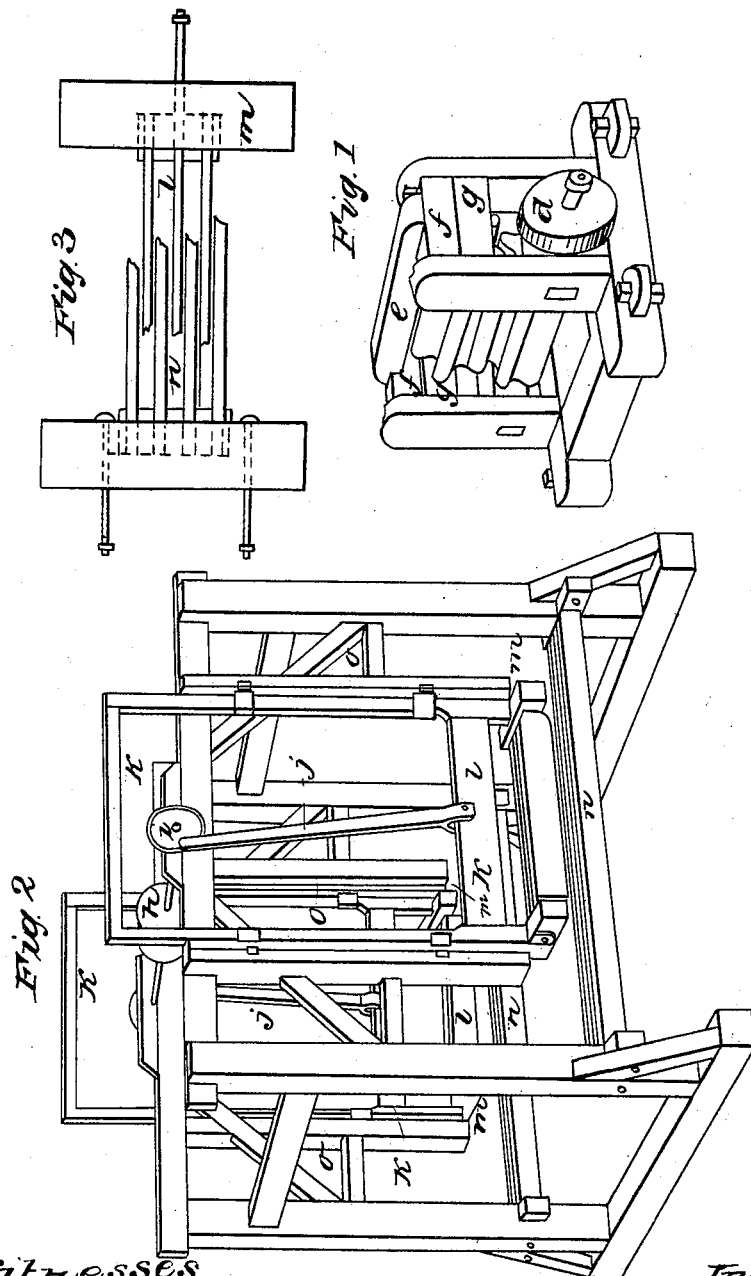


G. M. CAMPBELL.

Hemp Brake.

No. 52,821.

Patented Feb. 27, 1866.



Witnesses
James S. Black.
Sands & Breed.

Inventor
George M. Campbell

UNITED STATES PATENT OFFICE.

GEO. M. CAMPBELL, OF LEWISTOWN, ILLINOIS.

IMPROVEMENT IN HEMP-BRAKES.

Specification forming part of Letters Patent No. 52,821, dated February 27, 1866.

To all whom it may concern:

Be it known that I, GEORGE M. CAMPBELL, of Lewistown, Fulton county, and State of Illinois, have invented a new and useful Machine for Breaking Hemp; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, and to the letters of reference thereon, making a part of this specification, in which—

Figure A is a perspective view of the masher. Fig. B is a perspective view of the hemp-brake, and Fig. C a vertical section of the upper and lower brakes or slat-bars and head-blocks.

The nature of my invention consists in so making the brakes that the slats may be changed and adjusted at such distance from each other as may be best suited to the kind of hemp to be worked, whether coarse or fine; in working the brakes parallel to each other, thus permitting two hands to work at each brake, and in so constructing the general frame-work that the hemp may be easily put between the brakes, although the machine may be in rapid motion.

To enable others skilled in the art to make and use my invention, I will now describe its construction and operation.

I make the masher A (the shaft of which connects with my power, and on which is attached the drum *d*) of two five-cog rollers, the upper one being worked by the lower, attached to shaft, and kept upon the hemp by sufficient weight on the bar *e*, which rests upon the beams *f*, working in grooves in posts, and which beams bear upon similar ones *g*, in which the axles of upper roller work.

With a band I connect the drum *d* to the drum *h*, Fig. B, attached to a shaft which turns the cranks *i*, that work the pitmen *j*, geared to the gates *k*. To the lower end of the gates I secure the upper brake, *l*, of three slats, by a bolt and strap through the head-blocks *m*. The lower brake, *n*, of four slats, I secure in a parallel position by two bolts through the head-blocks and posts and braces, as shown in drawings. These head-blocks have a three-inch mortise, into which tenons on ends of slats are entered, and slats are then keyed and wedged at proper distance or intervals.

The beams *o*, between which the gates move, are so framed and placed that there is room between each and the outer post of frame-work to place a bundle of "mashed" hemp endwise. The butt being held in both hands, the hemp is brought between the brakes, the slats of which pass each other about one and one-fourth inch, (the upper brake moving about one hundred and fifty strokes per minute,) and the hemp is drawn through as the shives are beaten out. The butt-end is changed and cleaned in same manner.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The adjustable slats *l n*, keys *s*, and head-blocks *m m* and *w w*, when the several parts are constructed, arranged, and operated as and for the purpose set forth.

GEORGE M. CAMPBELL.

Witnesses:

JAMES S. BLACK,
SANDS N. BREED.