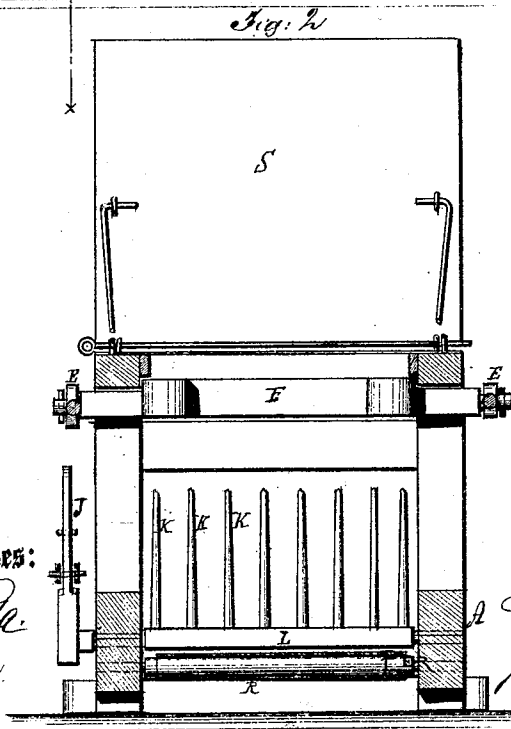
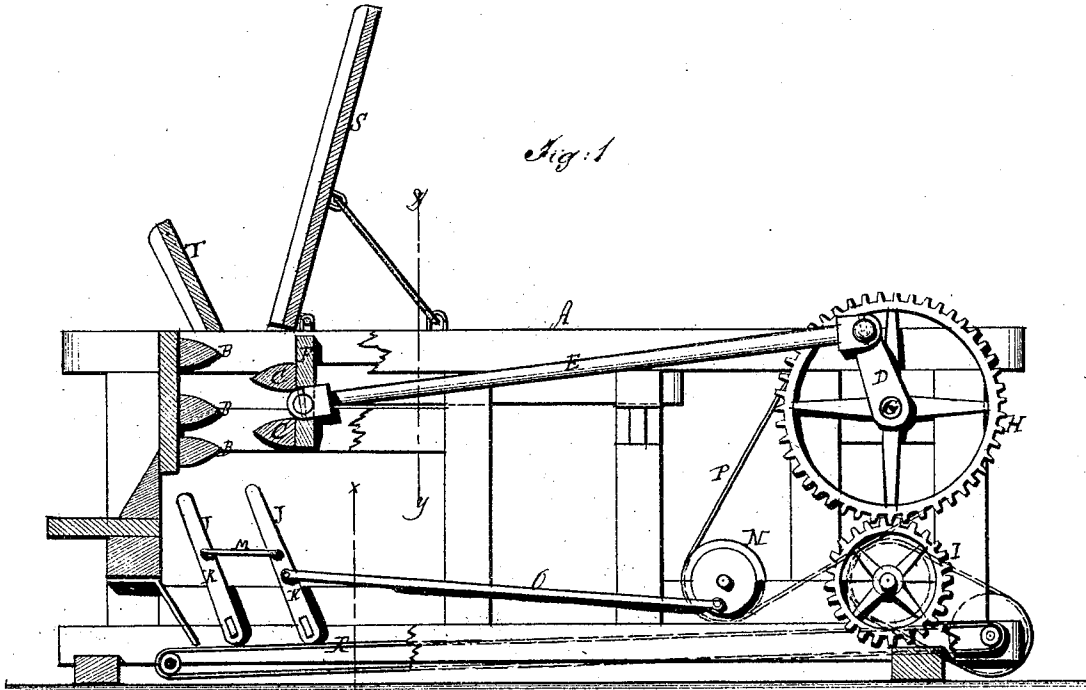


G. Rymel,
Membr Brake.

No. 102596.

Patented May 3, 1870.



Witnesses:

Chas. Nide.
Edgar Tate.

Inventor:

G. Rymel
Wm. C.
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United States Patent Office.

GEORGE RYMEL, OF PARIS, KENTUCKY.

Letters Patent No. 102,596, dated May 3, 1870.

IMPROVEMENT IN HEMP-BRAKES.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, GEORGE RYMEL, of Paris, in the county of Bourbon and State of Kentucky, have invented a new and useful Improvement in Hemp-Brake; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings forming part of this specification.

The object of this invention is to provide a simple, durable, and effective machine for breaking and cleaning hemp; and

It consists in the construction, arrangement, and combination of parts, as hereinafter described.

In the accompanying drawings—

Figure 1 represents a sectional side elevation of the machine, showing the general construction and operation.

Figure 2 represents a vertical cross-section of the machine, as seen when looking to the left from the lines *x x* and *y y*.

Similar letters of reference indicate corresponding parts.

A is a frame of rectangular form, of suitable size and strength, made of either wood or metal.

B represents a series of transverse brake-bars, fixed horizontally in the frame, three (more or less) in number.

C represents movable brake-bars, which are made to mesh into the fixed bars and receive a reciprocating motion, imparted by means of cranks D, on each side of the machine, and the two pitmen E, connected therewith and with the transverse bar F, to which the movable brake-bars C are attached.

The cranks D are attached to the outer ends of the transverse shaft G, which shaft is rotated by means of the gear-wheels H and I, the lower wheel, I, being the driving-wheel. This wheel receives motion from the tumbling-rod of a horse-power, but the machine may be driven by water, steam, or other motive power.

J represents a pair of cleaners, which consist of a series of fingers, K, firmly fixed in transverse heads L.

They are attached together by the rod M, and, consequently, move together.

They are operated from the revolving wheel N, by means of the connecting-rod O.

The crank-wheel N is on the end of a transverse shaft, which is revolved by means of the belt or band P, from a pulley on the end of the shaft G.

R represents a revolving apron beneath the operating parts of the machine, which discharges the shives or waste at the rear end of the machine.

S is a movable, and T is a fixed apron, between which the bundles of hemp are fed into the machine.

The movable brake-bars C are given a horizontal reciprocating motion, as before stated, by means of the pitman E, but the bar F (to which they are attached) forms the end of a frame, which moves on ways or guides so that the brake-bars C move back and separate from the fixed bars to admit the hemp, and their motion is reversed, and they then mesh with the fixed brake-bars and crush the bundle of hemp between them.

The cleaners J are given a rapid oscillating motion, at the same time cleaning out the shives from the fiber.

The shives drop onto the revolving apron R, and are discharged at the rear end of the machine.

The hemp to be broken and cleaned is bound in bundles, (the band being near the butt end,) and the bundles are fed into the machine top end first, resting against the apron S. As the end passes through between the braking-bars, it is immediately acted upon by the cleaners J, so that the shives are beaten out. When the bundle has been sufficiently broken and cleaned in this position, it is withdrawn, the band is removed, the cleaned portion is wound around the arm of the operator, and the butt end of the bundle is subjected to the same operation.

By this machine, and in this manner, hemp may be broken and cleaned with but little manual labor, and in the most perfect and expeditious manner.

Having thus described my invention,

I claim as new and desire to secure by Letters Patent—

1. The combination of hoppers S T and brake-bars B C with fingered cleaners J K, all arranged nearly in the same vertical line, so as to act successively upon the hemp, in the manner described.

2. The combination of horizontal brake-bars B C, fingered cleaners J K, and endless discharging-belt R, all arranged as and for the purpose set forth.

GEORGE RYMEL.

Witnesses:

I. R. NEAL, M. D.,
W. H. WAINRIGHT.