No. 869,004. PATENTED OCT. 22, 1907.

F. T. MARTIN.

HEMP BRAKE.

APPLICATION FILED APR. 17, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

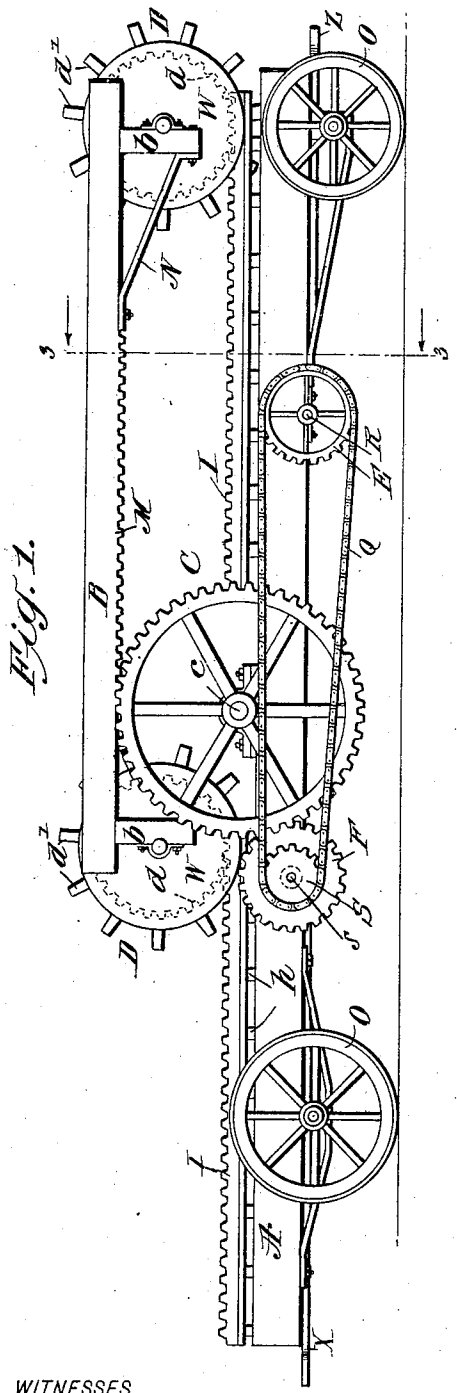
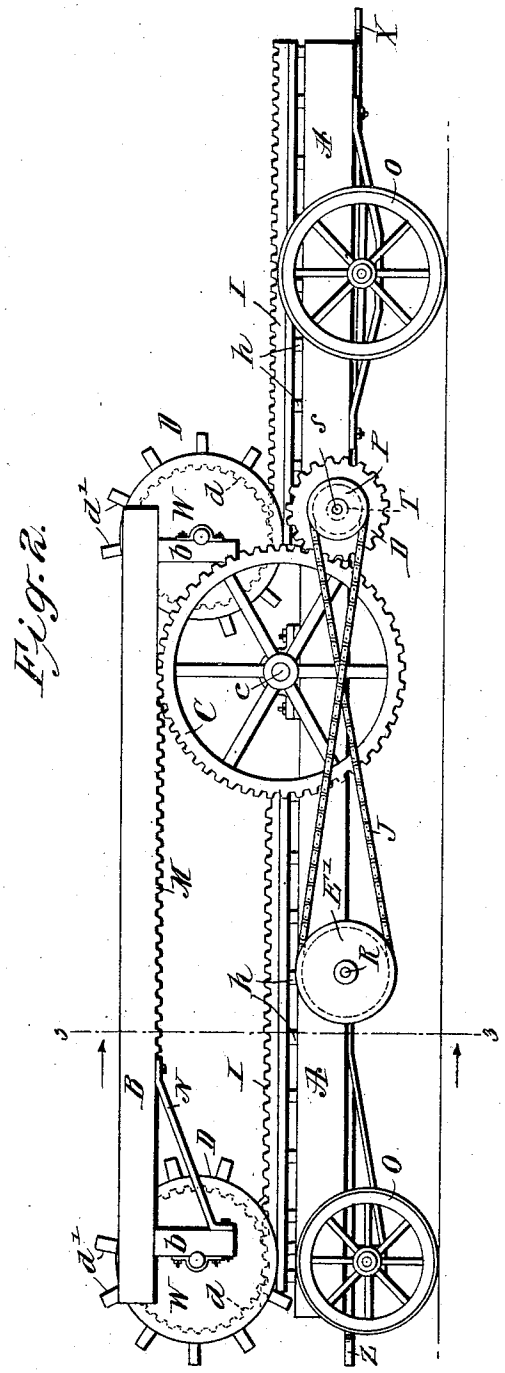


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

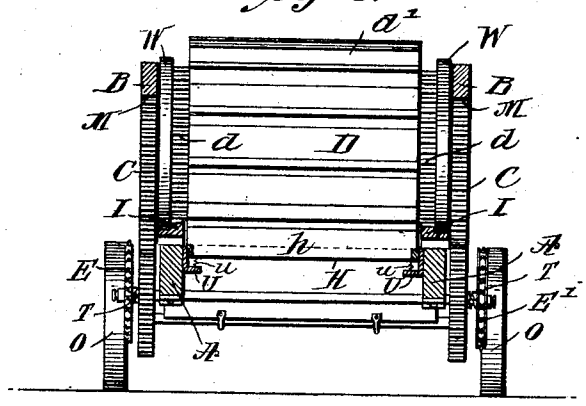


Fig. 4.

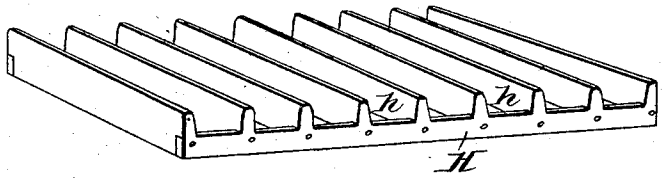
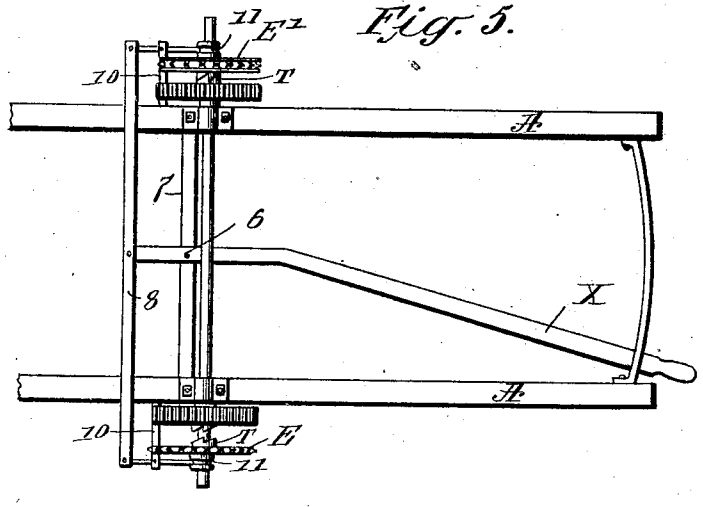


Fig. 5.



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FREEMAN T. MARTIN, OF WINCHESTER, KENTUCKY.

HEMP-BRAKE.

No. 869,004. Specification of Letters Patent. Patented Oct. 22, 1907.

Application filed April 17, 1907. Serial No. 368,746.

To all whom it may concern:

Be it known that I, FREEMAN T. MARTIN, a citizen of the United States, residing at Winchester, in the county of Clark and State of Kentucky, have invented a new and useful Improvement in Hemp-Brakes, of which the following is a specification.

This invention relates to a machine designed for the purpose of separating the fiber from the stalks and pulpy parts of hemp and the like, and has for its object to provide an improved machine of the kind, the main or special features of which are a bed provided with ribs on which the hemp is laid, and a pair of ribbed rollers which travel back and forth on the material, to break and separate the same.

The machine is illustrated in the accompanying drawings, in which

Figure 1 is an elevation of one side, designated as the right side, of the machine. Fig. 2 is an elevation of the opposite side. Fig. 3 is a section on line 3—3 of the other figures. Fig. 4 is a perspective of the bed plate. Fig. 5 is a plan of the reversing gear.

The main frame of the machine is indicated at A, the sills being framed and bolted together rectangularly, and it is mounted on wheels O for convenient transportation.

Upon or above the main frame is a carriage frame B, stoutly built, and mounted upon rollers D, and arranged to travel back and forth on the main frame, from one end to the other, being driven by large spur gears C, at opposite sides, which mesh with racks M on the under side of the longitudinal side pieces of the carriage frame. The gears C are mounted on a shaft *c* extending across the main frame.

Secured to the inner sides of the main frame A are angle irons U, upon which are mounted the bed plate H which comprises side bars, and a series of cross bars or ribs *h*, as shown in Fig. 4. Sets of springs *u* are placed between the angle irons and the side bars of the bed plate, to yieldingly support the latter.

The tracks upon which the carriage moves back and forth are mounted on the side sills of the main frame, and these tracks have a smooth portion, and also racks I, along the same.

The heavy rollers D are journaled in bearings on depending frames *b* forming part of the carriage frame and braced by braces N. These rollers are located at opposite ends of the carriage frame and are provided at opposite ends with gears *d* which mesh with the racks I on the main frame, and also with plain rims W which roll on the smooth part of the track and so support the carriage and relieve the pressure on the cog wheels. The rollers D are also provided with ribs *d'* which extend across the periphery thereof, parallel to the axis, and cooperate with the ribs *h* of the bed plate as the rollers pass thereover.

The main drive shaft R extends across under the main frame and may be driven by any suitable power. It has a sprocket wheel E at one end and a grooved sprocket wheel E' at the other. On the right side the sprocket is belted by a plain chain belt Q to a sprocket S loose on a countershaft *s* extending across the machine and carrying a fixed pinion F in mesh with one of the gears C. A clutch indicated in dotted lines at T, between the sprocket S and pinion F enables them to be engaged or disengaged, and the clutch is controlled by a lever X at one end of the machine. On the left side the pulley E' is belted by a crossed chain J to a grooved sprocket P loose on shaft *s* which has at that end another fixed pinion D in mesh with the other gear C. The sprocket P clutches with pinion F, the engagement being controlled by lever Z at the end of the machine opposite the lever X.

The shifting levers X and Z are pivoted at 6 to a cross piece 7 under the frame and are connected by a drag link 8 to levers 9 which are fulcrumed on brackets 10 and engage in grooves 11 in the hubs of the pulley P and sprocket S respectively.

The machine is fed and operated from both ends, one operator controlling the drive in one direction, by the lever X, and the other the reverse, by lever Z. The hemp is placed on the bed plate H at each end, and the drive controlled to roll the carriage back and forth from one end to the other. The ribs *h* and *d'* are properly positioned and spaced to pass between each other and the hemp is broken therebetween as the rollers pass thereover, after which the stalks can be easily shaken out and the fiber left free and clean.

I claim

1. In a brake, the combination of a frame having racks along the sides thereof, a bed on the frame having spaced ribs, a carriage over the frame, rollers journaled in the carriage and having gears in mesh with the racks and also having ribs which enter the spaces between said ribs, and means to move the carriage back and forth.

2. In a brake, the combination of a spring-supported bed having spaced ribs, and a roller movable back and forth over the bed and having ribs which enter the spaces between the ribs of the bed.

3. In a brake, the combination with a ribbed bed, tracks along opposite sides of the bed having a plain portion and a cogged portion forming a rack, a carriage frame movable back and forth over the bed, and rollers journaled in the carriage and having ribs which coöperate with the ribs of the bed, and also having plain rims which rest on the plain portions of the track and a gear which meches with the rack.

4. In a brake, the combination of a ribbed bed, a carriage movable back and forth thereover, and having a rack at each side, rollers journaled in the carriage and having ribs which coöperate with the ribs of the bed, gears at opposite sides of the bed, in mesh with the racks, and means to revolve the gears in opposite directions, to reciprocate the carriage.

FREEMAN T. MARTIN.

Witnesses:
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T. S. BUSH.