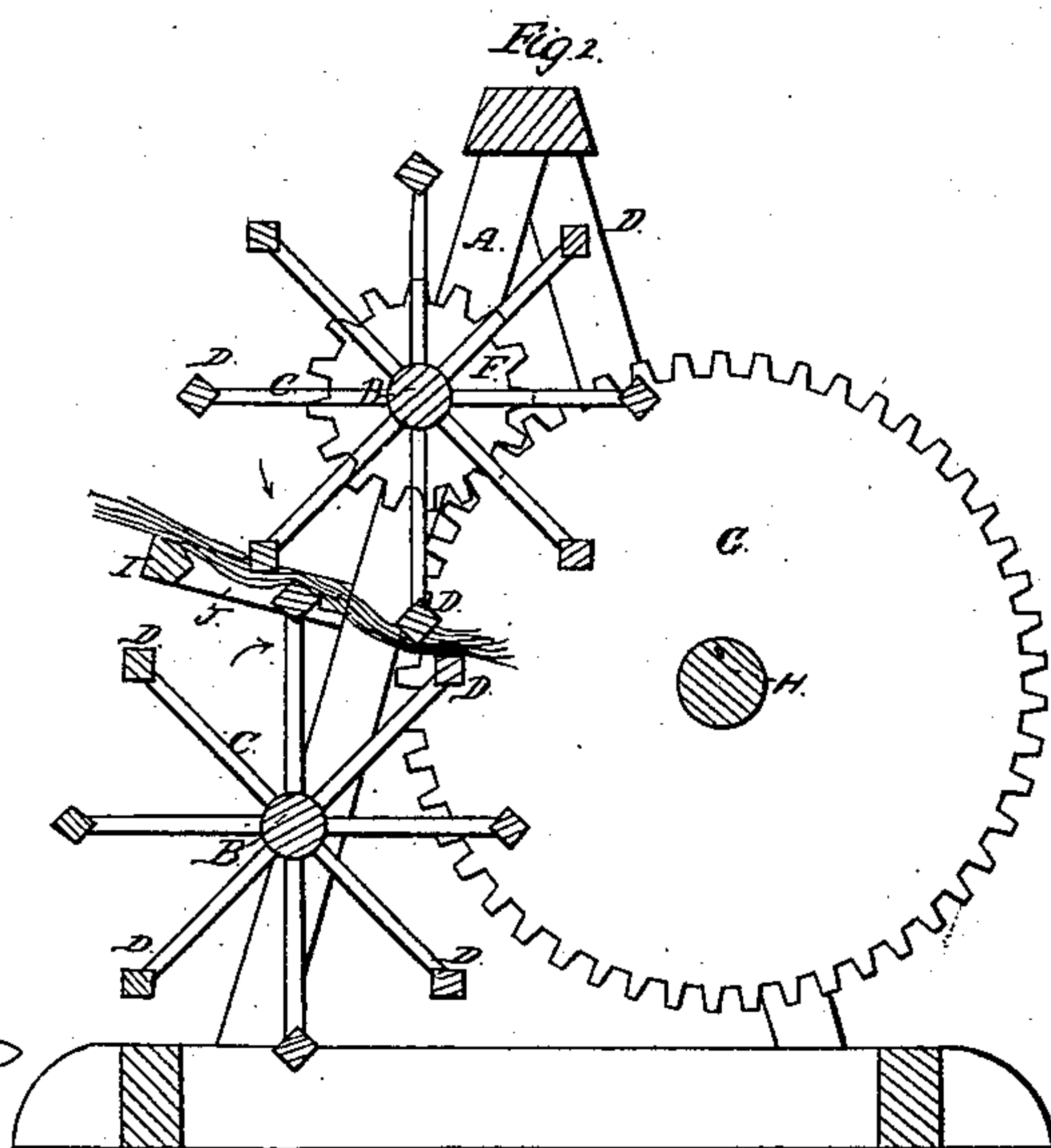
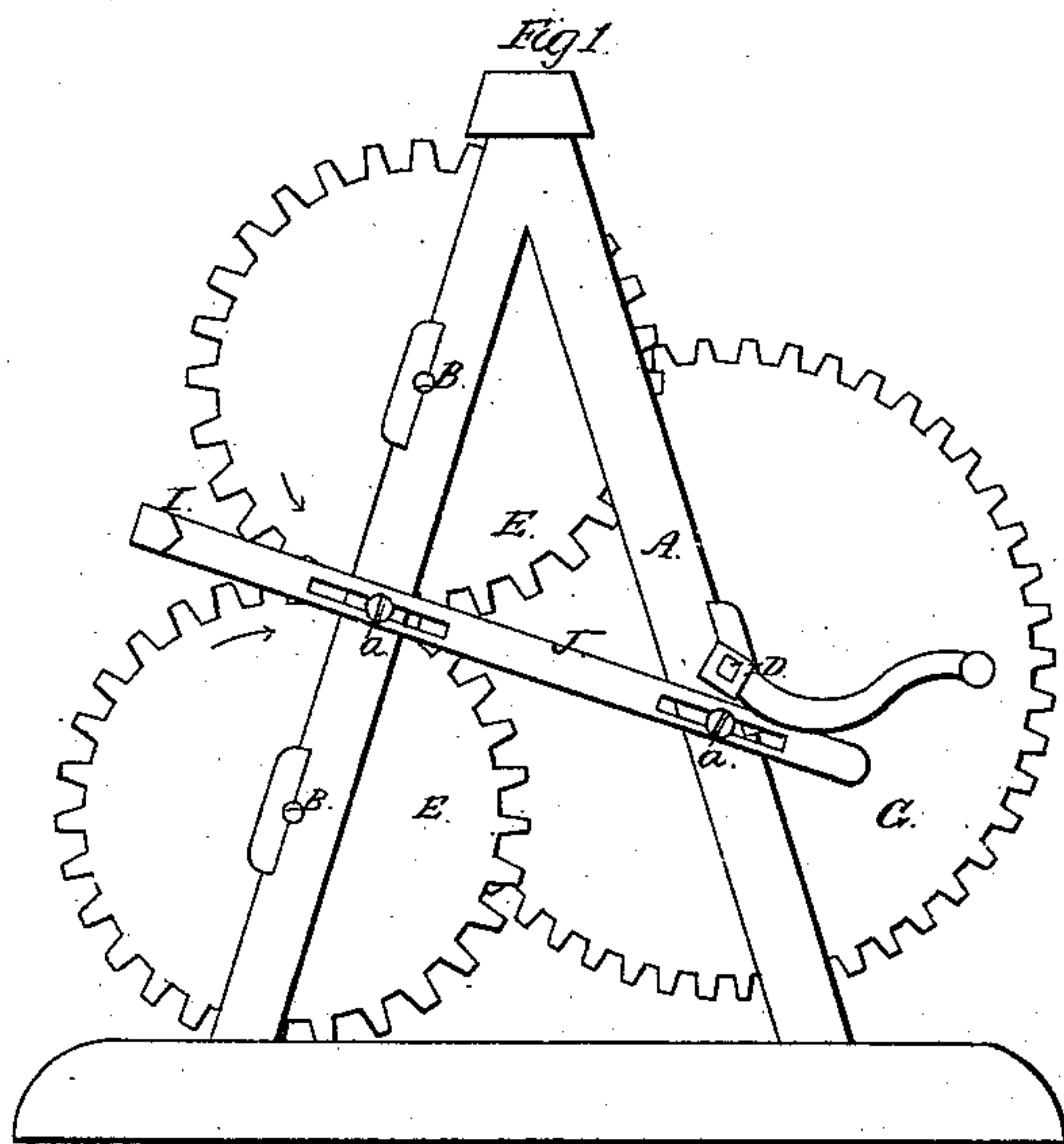


J. T. Gillman.

Hemp Brake.

N^o 42,847.

Patented May 24, 1864.



Witnesses.
J. W. Brombs
Geo. W. Reed

Inventor.
J. T. Gillman
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Attorneys

UNITED STATES PATENT OFFICE.

JOHN T. GILLMAN, OF WALNUT FORK, IOWA.

IMPROVEMENT IN HEMP-BRAKES.

Specification forming part of Letters Patent No. 42,847, dated May 24, 1864.

To all whom it may concern:

Be it known that I, JOHN T. GILLMAN, of Walnut Fork, in the county of Jones and State of Iowa, have invented a new and Improved Hemp-Brake; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part a of this specification, in which—

Figure 1 represents a side elevation of my invention. Fig. 2 is a transverse vertical section of the same.

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

This invention relates to an improvement in that class of hemp-brakes in which a series of revolving beaters are employed, which by their action on the hemp break the same and clean the fiber perfectly from the wood and other impurities.

The nature of my invention and its peculiar advantages will be readily understood from the following description.

A represents a frame, made of wood or any other suitable material, which forms the bearings of the axles B of two skeleton wheels, C. To the outer ends of the arms of these wheels are attached the beaters D, and said wheels are in such relative position toward each other that the beaters interlock, as clearly shown in Fig. 2 of the drawings. The axles B are geared together by means of cog-wheels E, as shown in Fig. 1, and a pinion, F, on one of said axles gears into the large driving-wheel G, secured to an axle, H, to which motion is imparted by hand or other competent power. By these means a rapid rotary motion is imparted to the beaters D in opposite directions.

The hemp is fed to the beaters over a cross-rail, I, which is secured to the arms J, and these arms are secured to the frame A by means of screws a, which pass through slots in the arms, so that the rail I can be adjusted toward or from the beaters. The beaters themselves are formed of square bars of wood, or other suitable materials, placed edgewise, as

clearly shown in Fig. 2, so that they act on the hemp with their sharp corners. By the combined action of the rapidly-revolving beaters the hemp is thoroughly broken and the fiber is perfectly cleaned, and by adjusting the rail toward or from the beaters this action on the hemp can be regulated according to its nature and the state in which it may be brought to the brake. If the beaters act upon the hemp too hard, the fibers are torn and wasted, and if they do not act hard enough the fibers are not thoroughly cleaned.

The arms J, to which the cross-rail I is attached, are set in an inclined position, so that by shifting them in the frame A the cross-rail is raised or lowered. By these means the position of the cross-rail in relation to the beaters can be adjusted and the force with which the several beaters strike the hemp can be regulated. By raising the cross-rail the action of the lower beaters is diminished and that of the upper beaters increased, and vice versa, and in this manner the action of the brake can be adjusted so nicely for hemp of any description, or for other fibrous plants, that the same will clean the fibers perfectly and without the least injury.

By my brake no fiber need be wasted, the action of the beaters can be regulated, and the machine is so constructed that it works very easy, it is not liable to get out of order, and it can be operated by hand or by any other competent power.

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

The adjustable cross-rail I, secured to inclined arms J, in combination with two sets of rapidly-revolving beaters, D D, constructed and operating as and for the purpose shown and described.

JOHN T. GILLMAN.

Witnesses:

S. M. JOHNSON,
ELI WALKER,
S. P. BENADORN.