

(No Model.)

3 Sheets—Sheet 1.

F. W. REESE.
BROOM CORN CLEANER.

No. 580,673.

Patented Apr. 13, 1897.

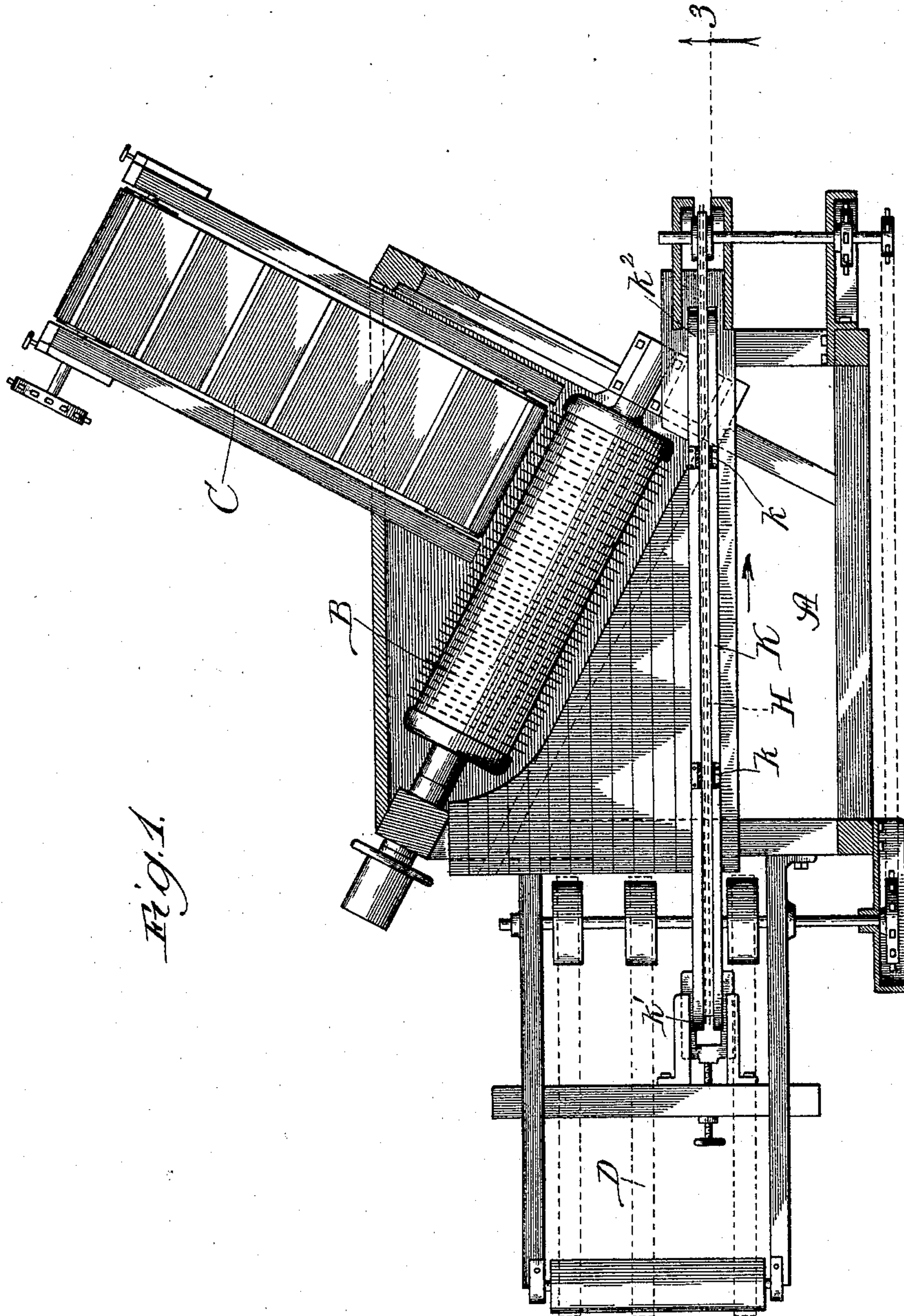


Fig. 1.

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Lute J. B. Allen.

Inventor:
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By William D. Banning & Sheridan,
Attorneys.

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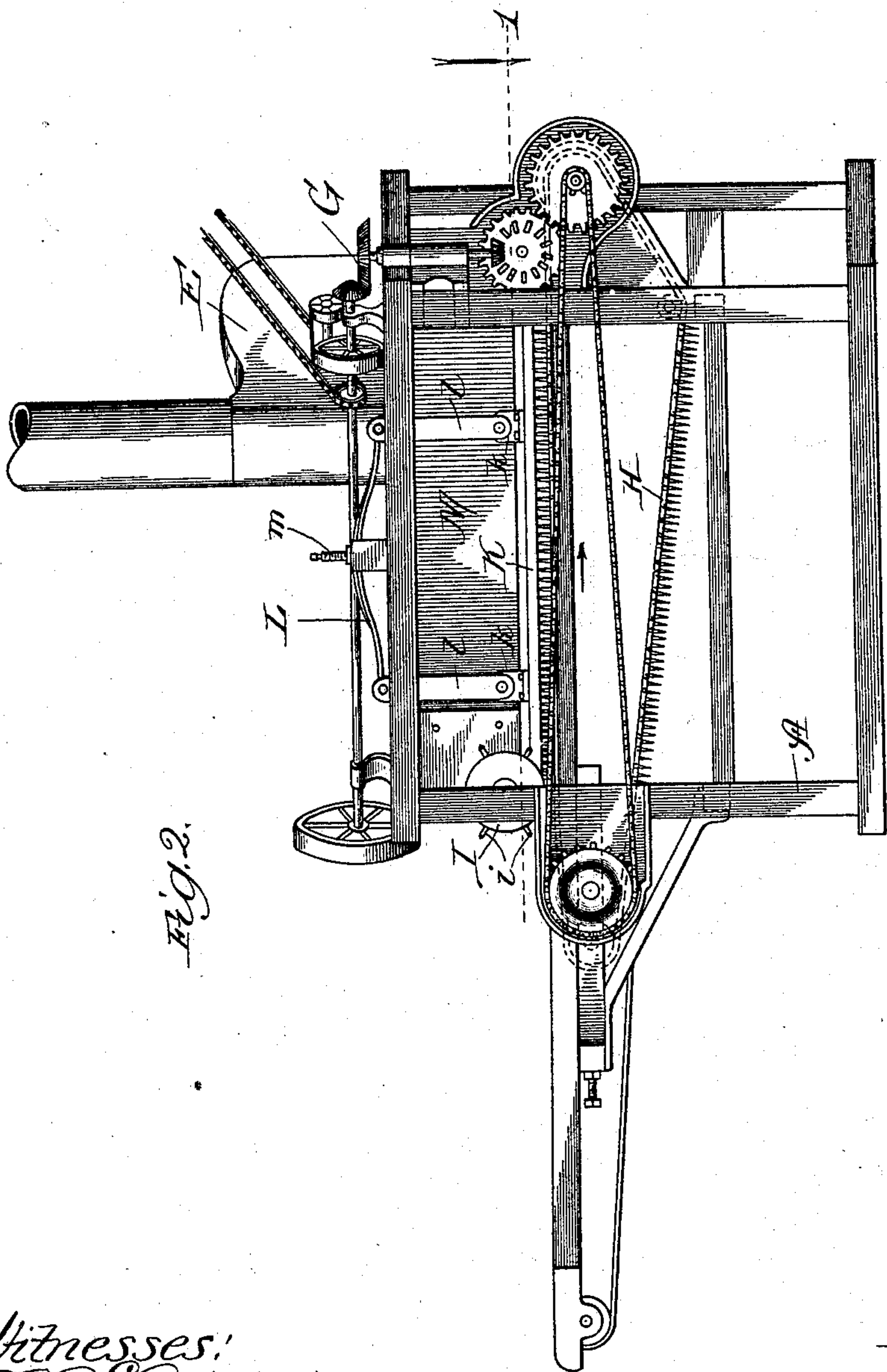


Fig. 2.

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(No Model.)

3 Sheets—Sheet 3.

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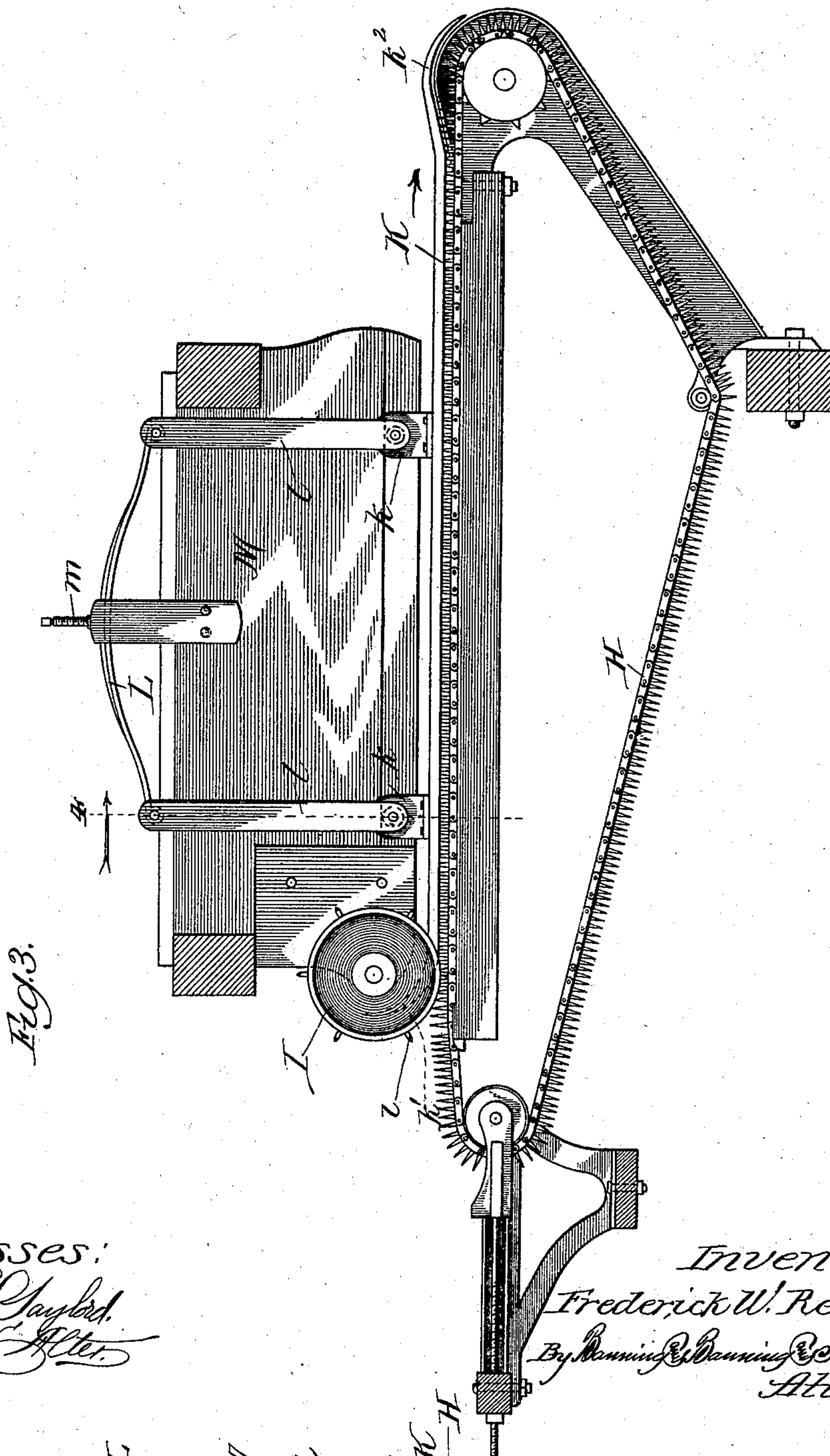


Fig. 3.

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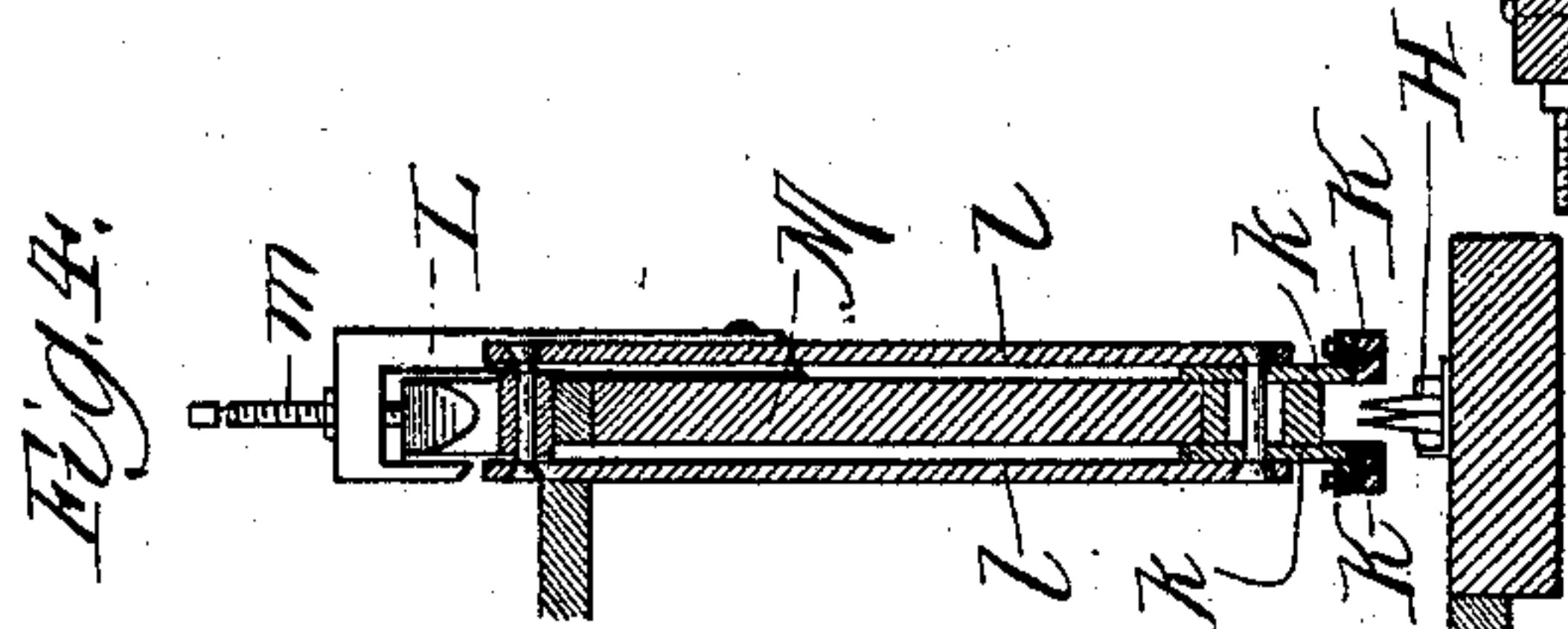


Fig. 4.

UNITED STATES PATENT OFFICE.

FREDERICK W. REESE, OF PARIS, ILLINOIS.

BROOM-CORN CLEANER.

SPECIFICATION forming part of Letters Patent No. 580,673, dated April 13, 1897.

Application filed March 16, 1896. Serial No. 583,379. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. REESE, a citizen of the United States, residing at Paris, in the county of Edgar and State of Illinois, have invented certain new and useful Improvements in Broom-Corn Cleaners, of which the following is a specification.

This invention relates to broom-corn cleaners or machines for stripping broom-corn brush by removing the seeds therefrom and is intended to be an improvement upon the inventions illustrated, described, and claimed in Letters Patent of the United States, No. 505,128, granted to me September 19, 1893, and No. 488,251, of December 20, 1892.

The object of my invention is to make a simple, economical, and efficient broom-corn cleaner and provide it with a flexible guide-bar for holding the brush in the toothed feed-chain; and the invention consists in the features, combinations, and details of construction hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a sectional plan view of a broom-corn cleaner fitted with my improvements and taken on the line 1 of Fig. 2; Fig. 2, a side elevation of a broom-corn cleaner, showing my improvements in operative position; Fig. 3, an enlarged longitudinal vertical section of a portion of the mechanism—viz., the toothed feed-chain and the flexible guide-bar—taken on the line 3 of Fig. 1, looking in the direction of the arrow; and Fig. 4, a transverse vertical section taken on the line 4 of Fig. 3.

In the art to which this invention relates it has been usual to keep the broom-corn brush in contact with the toothed feed-belt by means of a rigid mechanism. This method is objectionable in that the broom-corn brush varies in size and the operator in using the machine feeds it in irregular bunches, the large bunches or heavy feed having the effect of straining the guard, so that the succeeding smaller bunches are not properly held, but are pulled out of the chain by the action of the stripping-cylinders. In other machines a guiding belt or chain has been used for keeping the brush in contact with this toothed feed-chain. This is objectionable in that they stretch and become loose through tension on the brush and as a consequence fail

to hold it from being pulled out of the peg-chain.

The principal object, therefore, of my invention is to overcome these objections and provide a simple and efficient guard mechanism for holding the brush in contact with the feed-belt without especial regard to the size of the bunches and at the same time allow it to be fed through smoothly and without clogging.

In constructing a broom-corn cleaner fitted with my improvements I make a frame A of the desired size, shape, and strength to support and inclose the operative mechanism. This frame supports the usual stripping or cleaning cylinders B, elevator C for removing the seed, the feeding-apron or preliminary feeding mechanism D, exhaust-fan E, driving-gear G, and other mechanisms which are fully illustrated and described in the Letters Patent No. 488,251, above referred to, and to which I make reference, so that the full and complete description of the operation and construction of the machine may be readily obtained.

Up to this point the mechanisms are of the usual and ordinary form and on which I do not lay any claim of novelty in this invention. The novel features I will more fully hereinafter set forth.

I provide the cleaner with a toothed feed-belt H, adapted to grasp the broom-corn brush and carry it into the machine to be stripped or cleaned by the action of the revolving stripping-cylinders above referred to. At the induct of the feed-belt is a spike-wheel I for forcing the brush into direct contact with the teeth of the feed-belt and in the proper quantities between each of its projecting teeth.

To hold the brush in desired contact with the toothed feed-belt, I make what I term a "double" guard-bar K, having one portion arranged each side of the path of the feed-belt. This guard is connected with and held in flexible or yielding position by means of a leaf-spring L, which is supported on the framework or partition M of the machine in any desired manner. An adjusting-screw *m* is provided to regulate the tension of the spring. To facilitate the connection of the guard-bars with the leaf-spring, I provide it with projecting lugs *k*, preferably arranged

on each side of the partition M, and each of these lugs with links l , which are preferably pivoted to the spring and lugs. The front part of the guard-bar is provided with curved end portions k' , curved upward to allow the brush to make a ready engagement with the belt, while the rear portion is provided with downwardly-curved ends k^2 to assist in doffing the cleaned broom-corn brush.

By the above-described mechanism it will be seen that the broom-corn brush may be fed into the machine in any reasonable-sized bunches, and the guard will yield and flex to compensate for the difference in sizes of the bunches, while at the same time it presents a smooth surface to the brush and permits the same to be carried along readily and smoothly by the toothed feed-belt.

Having thus described my invention and its operations, what I claim as new, and desire to secure by Letters Patent, is—

1. In a broom-corn cleaner, the combination of a toothed feed-belt, and a rigid bar flexibly supported adjacent thereto for holding the broom-corn brush in contact with the toothed feed-belt, substantially as described.

2. In a broom-corn cleaner, the combination of a toothed feed-belt, and a double rigid guide-bar flexibly supported and having a

portion arranged at each side of the toothed feed-belt to hold broom-corn brush in operative connection with the toothed feed-belt, substantially as described.

3. In a broom-corn cleaner, the combination of a toothed feed-belt, a double guide-bar having one portion arranged at each side of the toothed feed-belt to hold the broom-corn in operative engagement with the toothed feed-belt, spring mechanism secured to the frame of the machine, and link connections interposed between the spring mechanism and the guide-bar to yieldingly hold said bar in operative position, substantially as described.

4. In a broom-corn cleaner, the combination of a toothed feed-belt, a double guide-bar having one portion arranged at each side of the toothed feed-belt to hold the broom-corn in operative engagement thereof, a leaf-spring adjustably secured to the frame of the machine, and link mechanism pivotally connected with the leaf-spring and the guide-bar to flexibly hold the said bar in operative position, substantially as described.

FREDERICK W. REESE.

Witnesses:

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