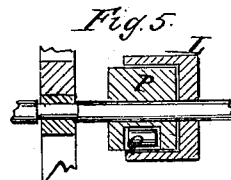
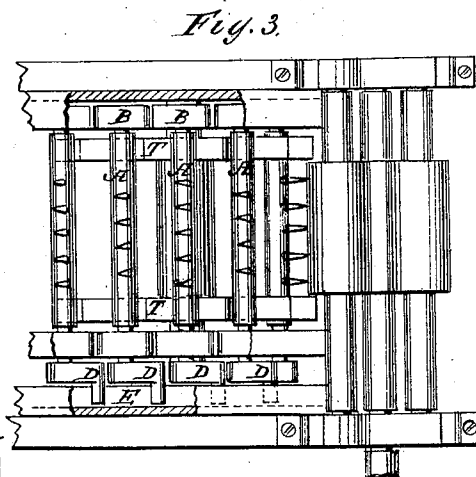
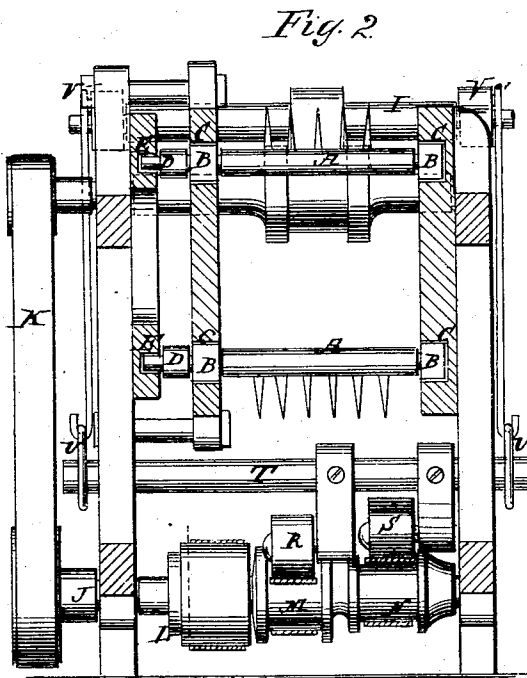
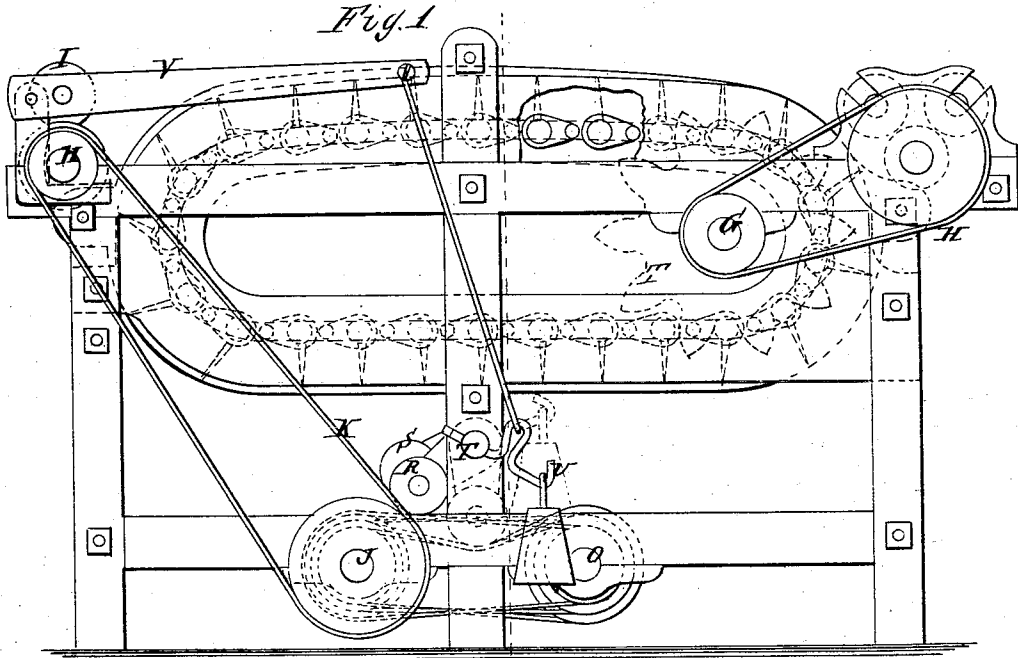


G. DAVIS.  
Hemp-Dressing Machines.

No. 157,315.

Patented Dec. 1, 1874.



WITNESSES:

*E. Wolff.*  
*A. J. Terry*

INVENTOR:

*Geo. Davis*  
BY *Munn & Co.*  
ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE DAVIS, OF ELIZABETH, NEW JERSEY.

## IMPROVEMENT IN HEMP-DRESSING MACHINES.

Specification forming part of Letters Patent No. **157,315**, dated December 1, 1874; application filed September 19, 1874.

*To all whom it may concern:*

Be it known that I, GEORGE DAVIS, of Elizabeth, in the county of Union and State of New Jersey, have invented a new and Improved Hemp-Dressing Machine, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claim.

Figure 1 is a side elevation of my improved hemp-dressing machine. Fig. 2 is a transverse section taken on the line *xx* of Fig. 1. Fig 3 is a plan of a portion of the machine; and Figs. 4 and 5 are details of the gear for driving the delivering-rollers.

Similar letters of reference indicate corresponding parts.

A represents the gill-bars, which have a guide-block, B, on each end arranged in a groove or way, C, in the frame, and at one end they have a crank, D, running in a guide-groove, E, to regulate the pitch of the teeth, but in these respects the contrivance is the same as heretofore made. The blocks B touch each other end to end, and by their length regulate the distance apart of the gill-bars, keeping them all the same distance from each other, the blocks forming close, continuous, endless lines, so that the bars cannot vary in respect of their distances, although they are not connected together. F represents a pair of toothed wheels, arranged between the upper and lower lines of these bars, so as to gear with both lines for driving the gills, the teeth of the wheels being of the same pitch as that of the bars, and meshing with them the same as they would with the teeth of other wheels, thus making a simple and convenient contrivance for the purpose, which saves the cost of connecting the bars in a chain, and the bars work easier. The wheels F are mounted on a shaft, G, to which motion will be applied in any ap-

proved way. For automatically varying the motion of the delivering-rollers H I according to the quantity of material passing, one is connected with the shaft J by a belt, K, the shaft having the cone-pulleys L M N, which are geared with corresponding reverse cone-pulleys on the driving-shaft O by an independent belt for each. The belt for pulley L, giving the slowest motion, is always tight, and the pulley turns the shaft by the friction-clutch, consisting of the chambered hub P and the roller Q, inside of the hollow rim of the pulley, which allows the shaft to overrun the pulley at any time, when driven by the pulleys M N, which drive faster. These latter pulleys have loose belts, with which tighteners R S are arranged to act alternately, the tighteners being on the rock-shaft T, which is held by the weighted lever U when the hemp is running light, so that the belts of pulleys M and N run loose, and the motion is given by the pulley L, but when the quantity increases and raises the upper roller, the levers V, connected to it, raise the weighted lever, which first tightens the belt of pulley M, giving a little faster motion, and then the other belt, giving a still faster motion. By the diminution of the quantity passing through the rollers the weighted lever falls, and the reverse results are obtained.

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

The combination of the reverse cone-pulleys, independent belts, friction-clutch, belt-tighteners, weighted lever, and the levers V; with the delivery-rollers, substantially as specified.

GEORGE DAVIS.

Witnesses:

ICHABOD H. ROBERTSON,  
GEO. S. DAVIS.