

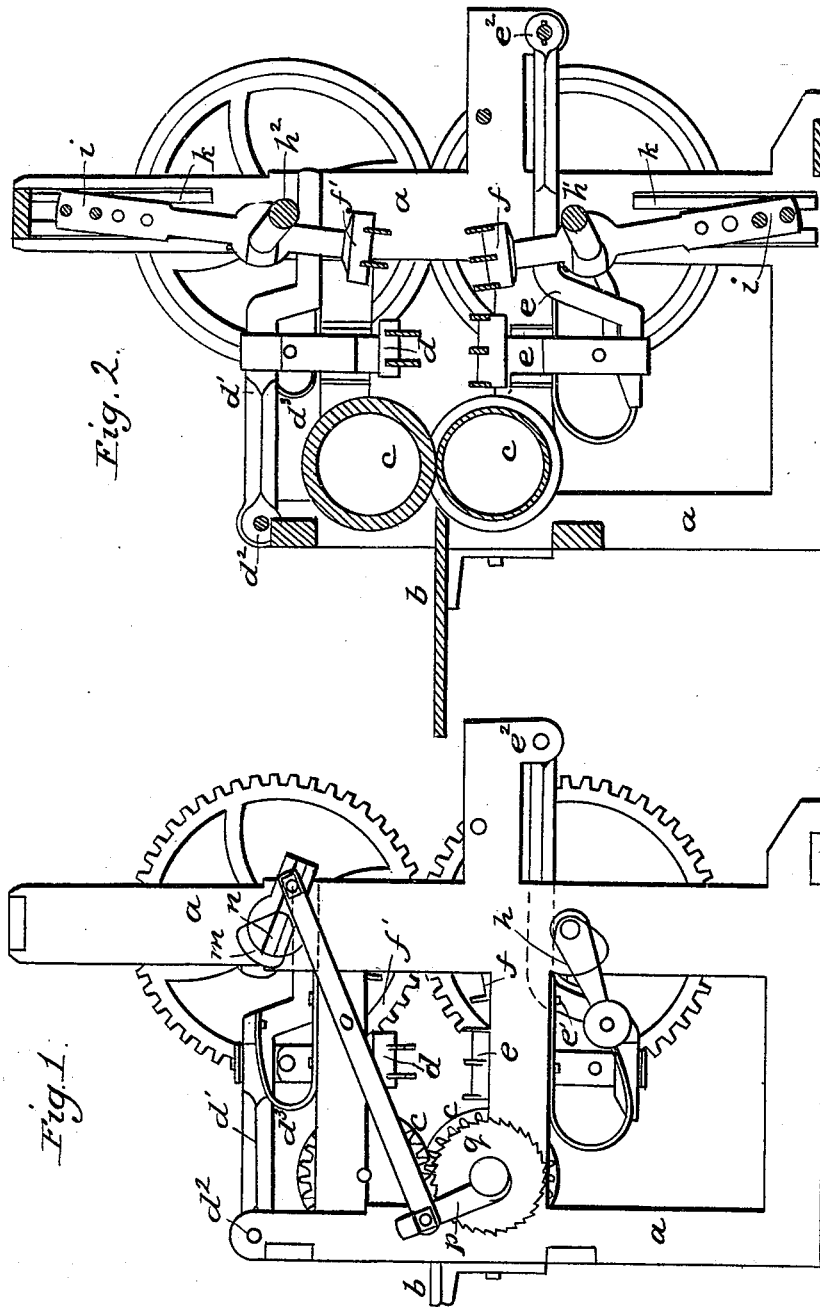
J. ANDERSON.

2 Sheets—Sheet 1.

Hemp and Flax Brake.

No. 6,860.

Patented Nov. 13, 1849.

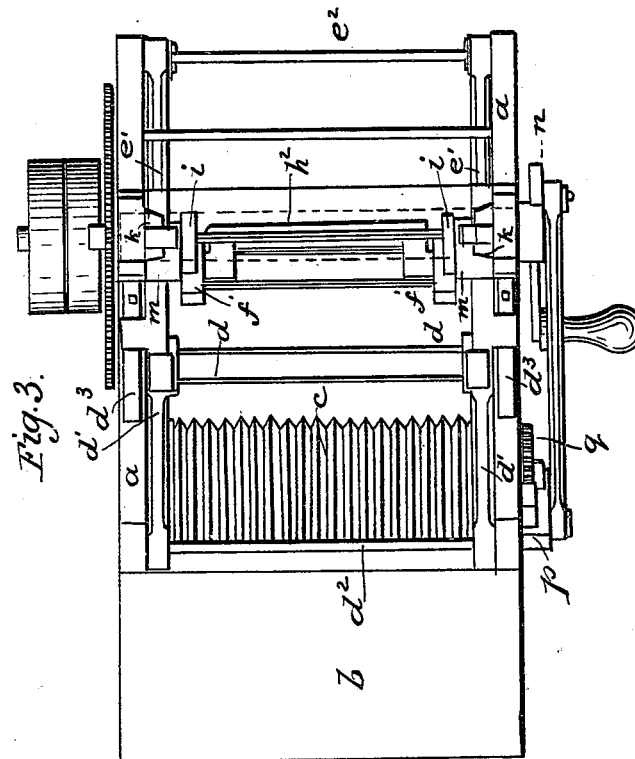
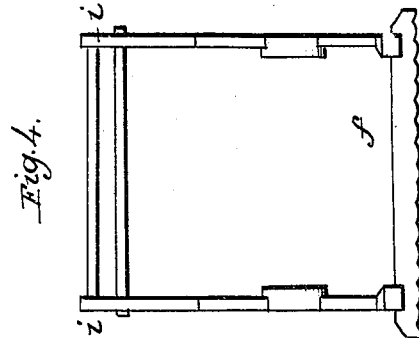


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# UNITED STATES PATENT OFFICE.

JAMES ANDERSON, OF LOUISVILLE, KENTUCKY.

## IMPROVEMENT IN HEMP-MACHINES.

Specification forming part of Letters Patent No. 6,860, dated November 13, 1849.

### *To all whom it may concern:*

Be it known that I, JAMES ANDERSON, of Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Breaking and Cleaning Hemp and Flax, &c; and I do hereby declare that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known, and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation. Fig. 2 is a vertical longitudinal section. Fig. 3 is a top plan.

The purpose of my invention is to break and clean hemp or flax and other fibrous substances at one operation, or, in other words, by passing it once through the machinery for that purpose. The construction is as follows: I first form a suitable frame, as already shown in the drawings, and indicated by the letters *a a*, consisting of four (more or less) uprights connected by proper cross-ties. At one end there is a feeding-board, *b*, upon which the material to be broken is to be placed. Just in front of this board I place two grooved rollers, *c c*, which have a series of triangular grooves extending around their periphery for their whole length. These grooves match into each other and split the hemp-stalk from end to end. These rollers move at intervals by means of a dog and rag-wheel, as will be hereinafter more fully described. Directly in front of the rollers a brake like the common hand-brake is located, the upper part, *d*, of which is affixed to a lever, *d'*, at each end, and of the second order, the fulcrum of which is at *d''*, over the rollers *c*, whence it extends forward horizontally to the brake, and then inclines downward and forward under a cam, hereinafter named, by which it is depressed, a spring, *d'''*, serving to raise it. The lower half of the brake *e* is supported on the end of a lever, *e'*, of the third order, its fulcrum being at *e''*, and the center being acted on by a cam, *h*, below that first named. It is obvious that the location and character of these levers may be changed and the same effect produced as that above described. A little distance in front of the brakes there is a pair of scrapers or scutchers, *f f'*, the upper

one of which has two swords, and the lower one three, like a brake, the edges of which are scalloped, as shown detached at Fig. 4. The arms to which these swords are affixed are long, and have at their extreme ends, *i*, slides that work in guides *k*, in the cheeks of the frame. Between this point and the swords are crank-shafts—one, *h'*, for the lower, and one, *h''*, for the upper swords—which are connected at the wrists of the cranks with the arms, so that the swords not only move up and down, but have a sweeping motion back and forth as the crank revolves. These shafts are geared together, and can be driven by a crank or band-pulley on the lower one. Outside the cranks, on the lower shaft, are the cams *h*, above named, and on the upper one the cams *m* are put to work the upper part of the brake. Outside the frame of the upper shaft there is a stout arm, with a radial groove in it, in which an adjustable wrist, *o*, is fastened. This wrist is connected with a vibrating arm, *p*, on the axle of the lower grooved roller outside a rag-wheel, *q*, into which a dog on the end of the arm *p* works, and is caused to move and turn the rollers *c* at proper intervals, which feeds the hemp through from the feed-board, and splits it. They then stop, and the brakes come up and break it, and at the same time help the rollers to hold it, while the scutchers scrape forward over it; and as they release their contact the brakes descend, and the rollers again feed through a new portion of the hemp or flax to be acted on, when the same operation is repeated.

Having thus fully described my improvement in breaking and cleaning hemp and flax and other fibrous substances, what I claim therein as new, and for which I desire to secure Letters Patent, is—

1. The combination of the grooved rollers, brake, and scutchers or scrapers, substantially in the manner and for the purpose set forth.

2. The scrapers, when employed with any other feeder that shall hold the material firmly while being scraped.

JAMES ANDERSON.

Witnesses:

WM. GREENOUGH,  
J. J. GREENOUGH.