

(No Model.)

C. E. ANDERSON.

MOSS CLEANER, PICKER, CURLER, AND SEPARATOR.

No. 369,676.

Patented Sept. 13, 1887.

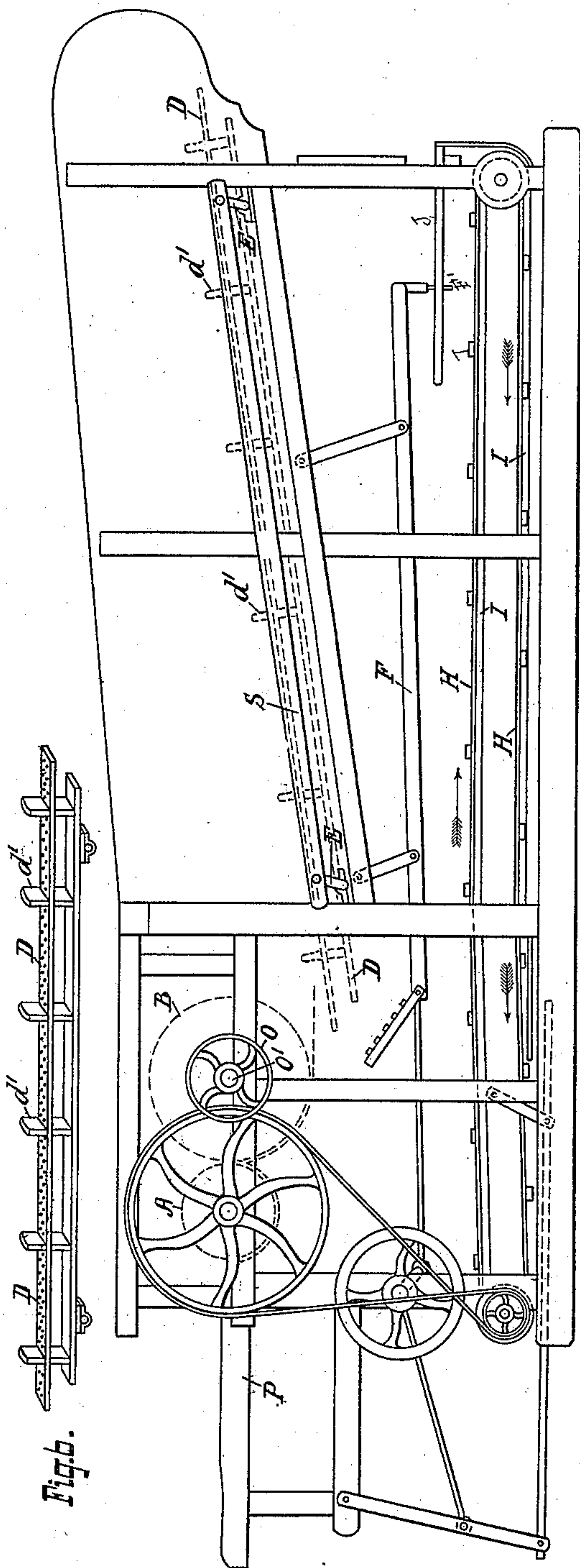


Fig. 1.

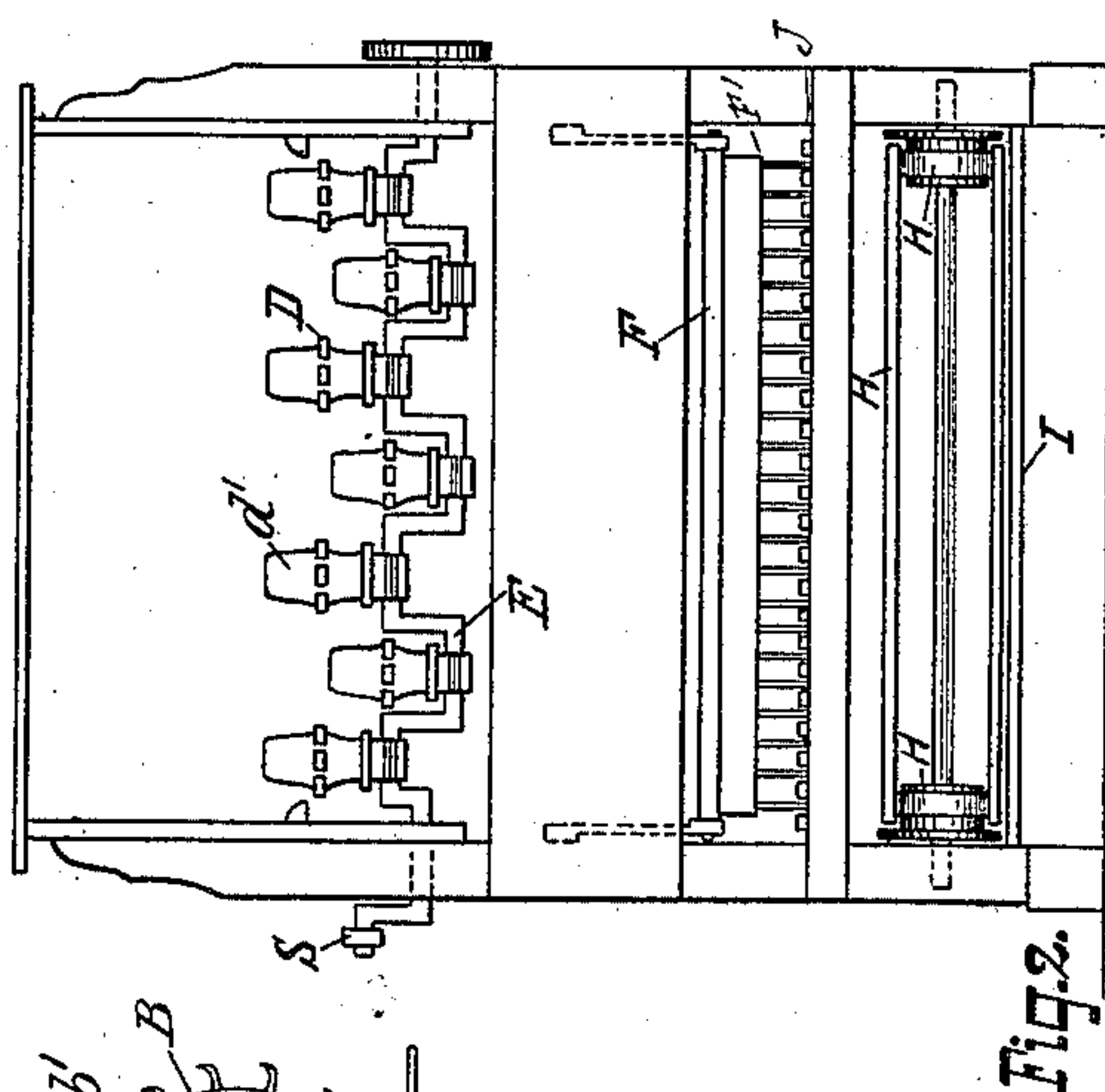


Fig. 2.

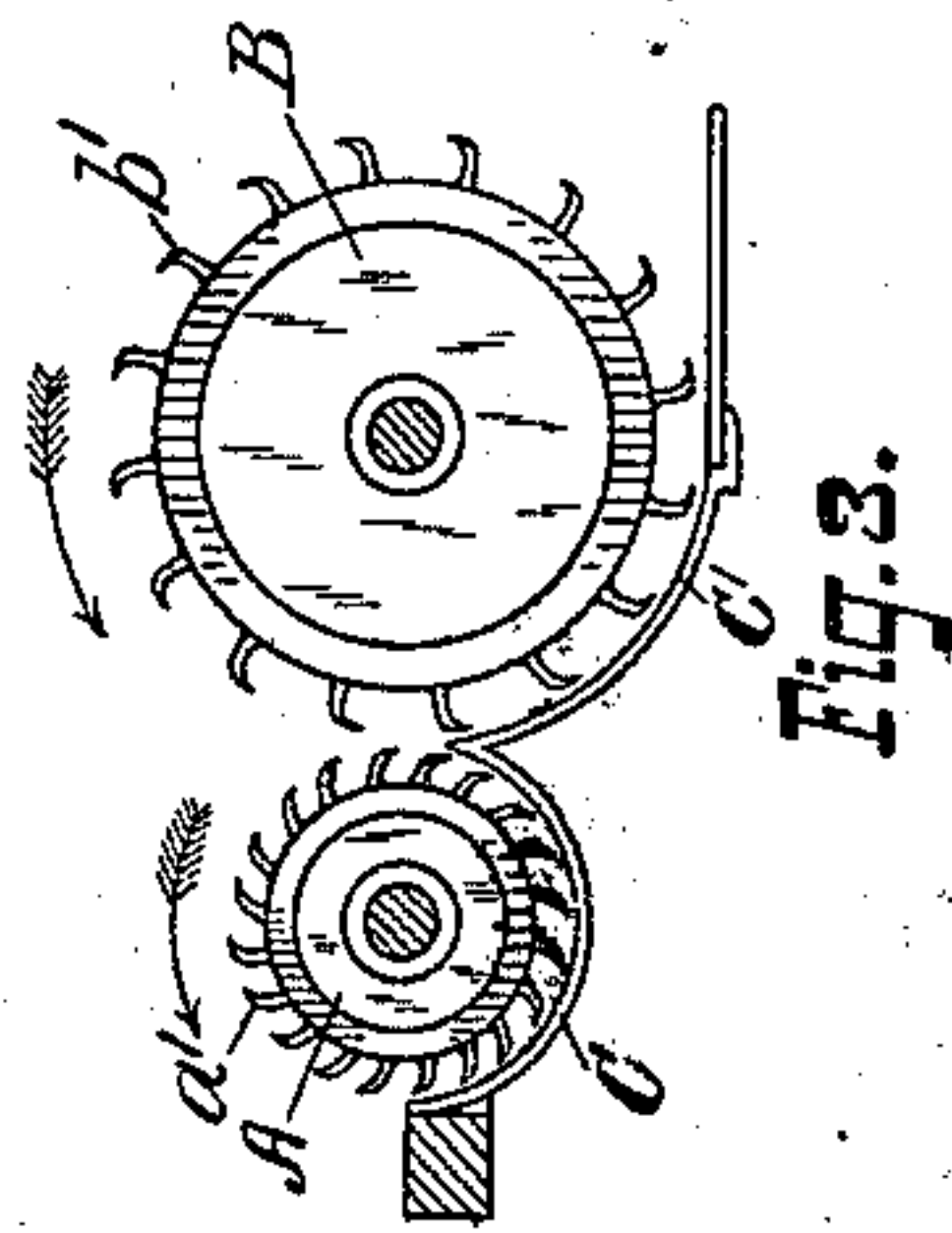


Fig. 3.

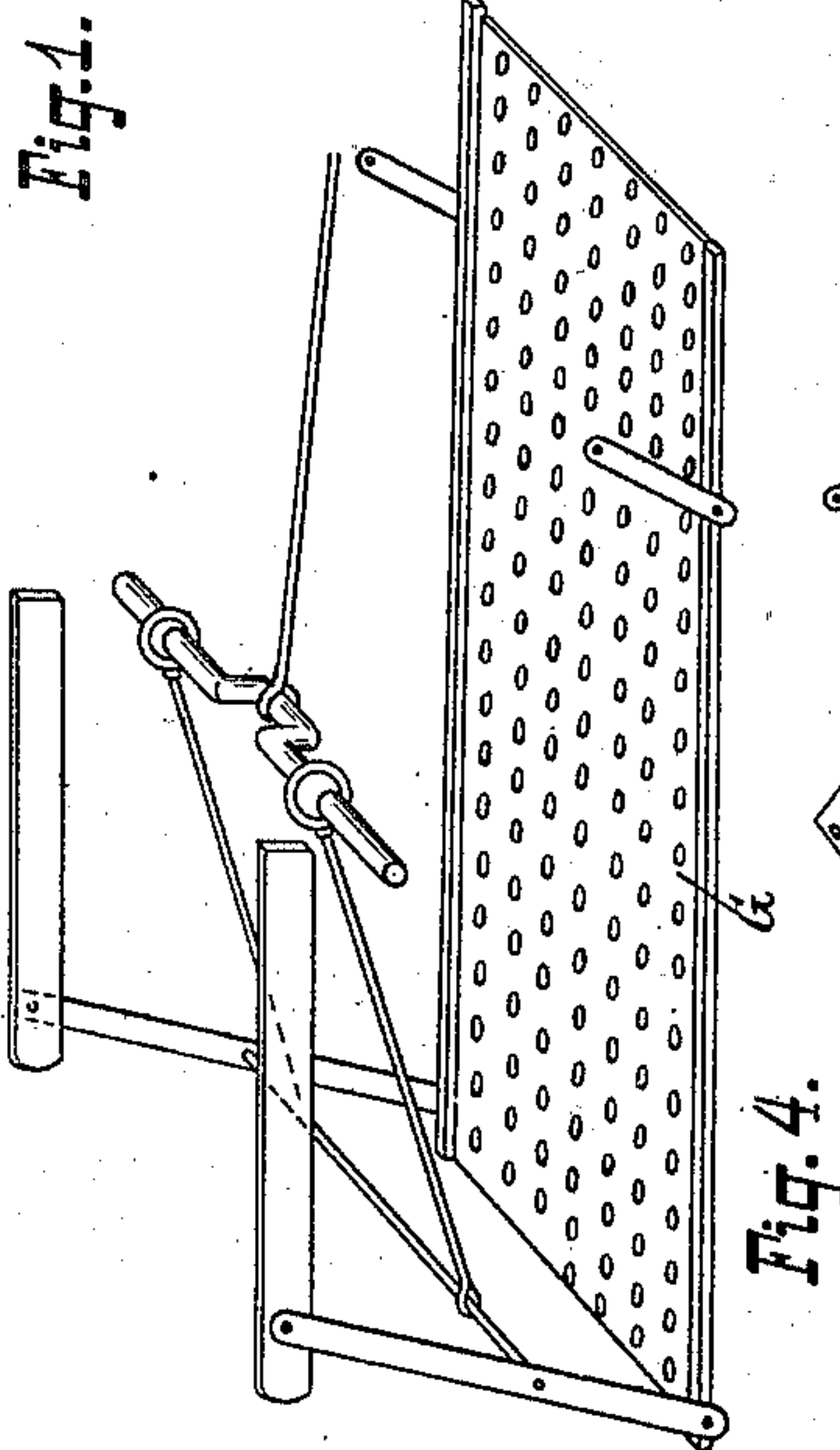


Fig. 4.

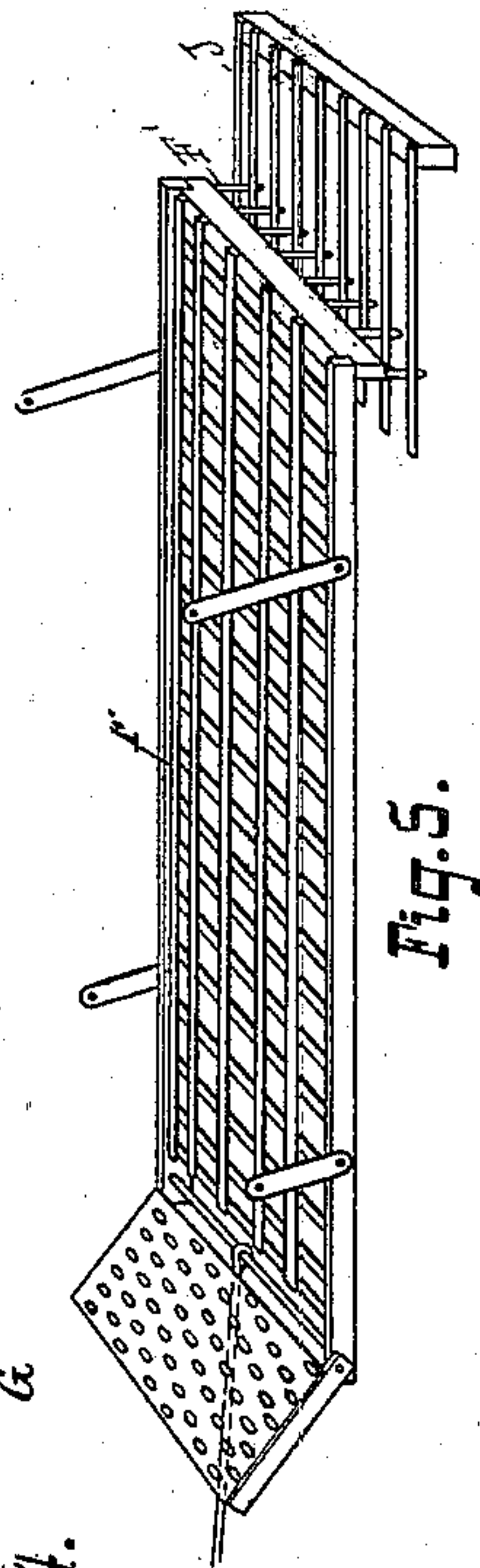


Fig. 5.

Attest  
A. Edmunds  
Carl Hayden

Inventor  
Charles Edward Anderson  
By P. J. Edmunds  
Attorney



# UNITED STATES PATENT OFFICE.

CHARLES EDWARD ANDERSON, OF LONDON, ONTARIO, CANADA.

## MOSS CLEANER, PICKER, CURLER, AND SEPARATOR.

SPECIFICATION forming part of Letters Patent No. 369,676, dated September 13, 1887.

Application filed February 5, 1887. Serial No. 226,663. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES EDWARD ANDERSON, a subject of the Queen of Great Britain, and a resident of London, Ontario, Canada, have  
5 inverted certain new and useful Improvements on a Picking and Curling Separator for Picking, Curling, Cleaning, and Separating Moss and Hair, of which the following is a specification.

10 The object of this invention is to provide a simple, strong, and durable machine for picking, curling, cleaning, and separating moss and hair from dirt, sticks, or other impurities which may become incorporated therewith,  
15 and makes moss to resemble curled hair; and it consists of the improved construction and combination of parts of the same, as will be hereinafter more fully described and claimed, reference being had to the accompanying  
20 drawings, wherein—

Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a rear end view of same. Fig. 3 is an enlarged detail view of the picking and curling cylinders.  
25 Fig. 4 is an enlarged detail perspective view of the mechanism which operates the deck sieve and screen for separating the short moss from dirt and other impurities. Fig. 5 is an enlarged detail perspective view of the deck-sieve, situated below the agitating-bars. Fig.  
30 6 is a detail perspective view of one of the agitating-bars.

Motion is communicated to this machine by a belt from a counter-shaft passing over pulley O. This operates the shaft O', as well as  
35 the picking and curling cylinder B, rigidly secured thereto. By belts and pulleys or other suitable devices motion is communicated to the different parts of the machine requiring  
40 to be operated.

The moss or hair is fed from the feeding and holding cylinder A and concave C to the picking and curling cylinder B and concave C' and from the cylinder B to the agitating-bars D.  
45 This concave C is set in close proximity to the points of the teeth *a'* of the cylinder A. This retains the moss always in contact with the teeth *a'*, thereby feeding the moss evenly and regularly to the teeth *b'* of the picking and  
50 curling cylinder B, and the moss or hair being loosely held by the teeth *a'* prevents the

breaking of the fiber. The cylinder A revolves at a low rate and the cylinder B at a high rate of speed, and the velocity of the cylinder B and the teeth *b'* coming in close  
55 contact with the teeth of the cylinder A and concave C' picks or combs out, curls, and cleans the fiber, the same as drawing a hair through the finger-nails. The teeth *a'* of the cylinder A are hooked for the purpose of holding the  
60 moss better and delivering easier to cylinder B, and prevents the fiber from winding on cylinder A. The teeth *a'* and *b'*, respectively, of the cylinders A and B are hooked, round in cross-section, and pointed, and are about two  
65 inches long, the teeth in cylinder A being considerably closer together than the teeth of cylinder B, but evenly distributed over each cylinder.

E E are crank-shafts, (shown particularly in  
70 Fig. 2 of accompanying drawings,) operated to work simultaneously by a connecting-bar, S. These form the agitating-bars D into two sets, each alternate bar being of one set, so that as  
75 the crank-shafts E E are operating, the alternate sets of bars D rise and lower and strike the moss and thoroughly remove all dirt and impurities which may adhere thereto, and these agitating-bars are formed with fingers  
80 *d'*, over which the pieces of sticks are too heavy to pass, and this continual striking and agitating of the moss by the agitating-bars, together with the fingers *d'*, completely separates  
85 all pieces of sticks or other large impurities from the moss, the latter being carried over the end of the agitating-bars and delivered at the back of the machine picked, curled, and separated perfectly clean. The sticks, dirt,  
90 and other impurities, as well as some medium-sized and small moss or hair fibers, which may adhere to said impurities, fall onto the deck-screen F. The latter is suspended on hangers  
95 from the frame of the machine and agitated by any suitable operating mechanism, to shake the dirt and small impurities through said screen F onto the table I. The medium-sized  
100 fiber of the moss passes over the end of the screen F onto the bars J, where it is pushed along by the fingers *F'*, secured to the under side of the screen F and operated therewith. By pushing the hair along on the bars J the sticks, being heavier, fall through onto the table



I, at the same time the moss or hair passes over the ends of these bars J and is delivered at the back of the machine. The slats of the endless carrier H push the dirt and sticks and the very short hair which may have accidentally fallen through the screen F onto the screen G, where they are all thoroughly agitated. The sticks and dirt, from their weight, fall through the perforations in the screen G, while the moss or hair, being so light and curly, is collected thereon and delivered over the end thereof at the front of the machine, and by a chute or other device the dirt and sticks are conducted from the screen G away from the machine, so that by using this machine the moss is picked and thoroughly cleaned and curled to closely resemble curled hair, and prevents any waste of material.

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

1. The holding-cylinder A and the picking-cylinder B, both revolving in the same direction, but at different rates of speed, and formed

with teeth  $a'$  and  $b'$ , respectively, tapered to a point and hooked, in combination with the concaves C C', both on the same side of the teeth of the cylinders A B, substantially as and for the purpose set forth.

2. In a machine for cleaning moss and hair, the combination of the screen F, teeth F', and bars J, substantially as and for the purpose specified.

3. In a machine for cleaning moss and hair, the screen F, teeth F', and bars J, in combination with the table I, endless slatted carrier H, and screen G, substantially as and for the purpose set forth.

4. The agitating-bars D D, formed with fingers  $d'$ , in combination with the crank-shafts E E and bar S, substantially as shown and described, and for the purpose specified.

In testimony whereof I affix my signature in the presence of the two undersigned witnesses.

CHARLES EDWARD ANDERSON.

Witnesses:

P. J. EDMUNDS,  
A. EDMUNDS.