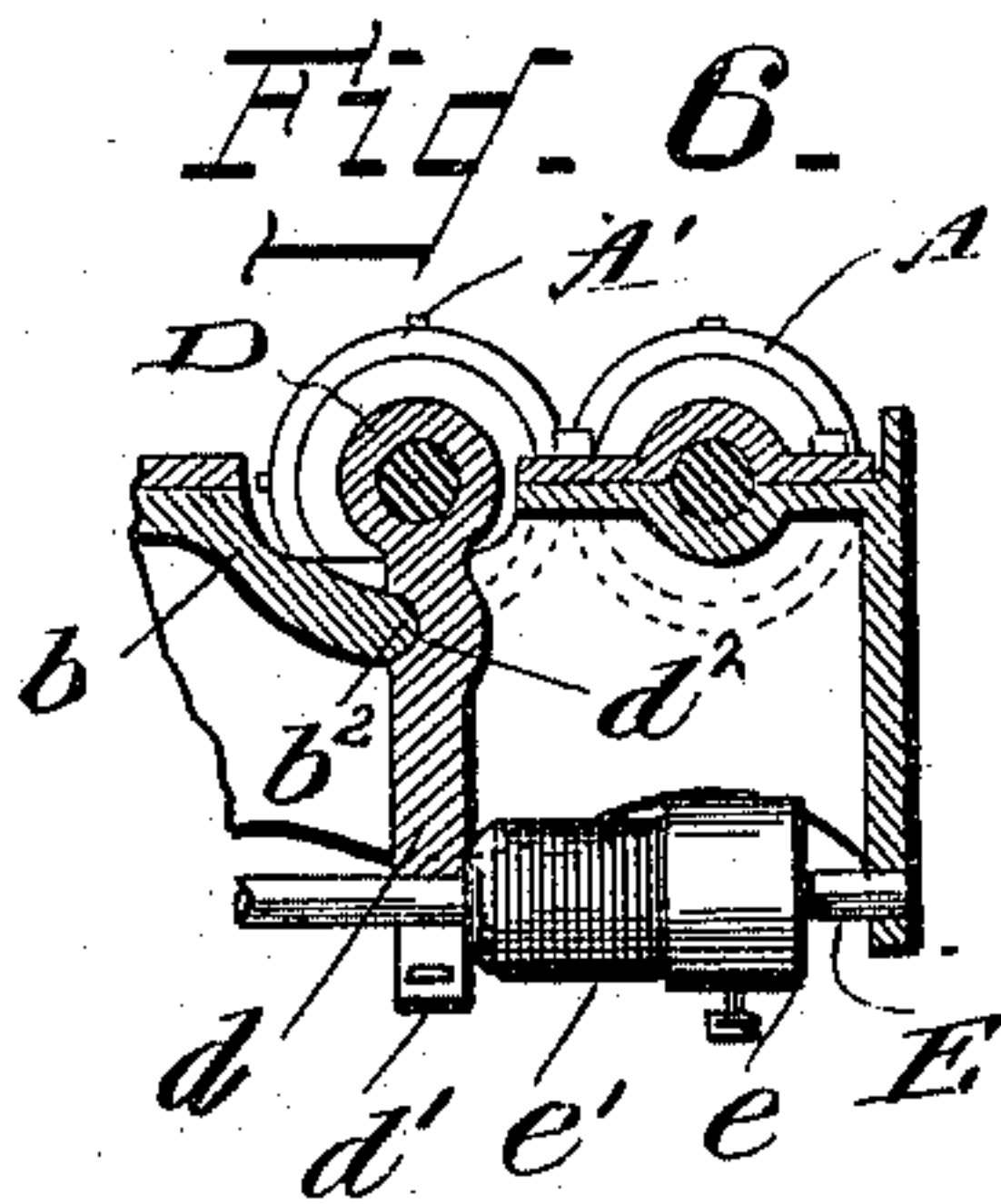
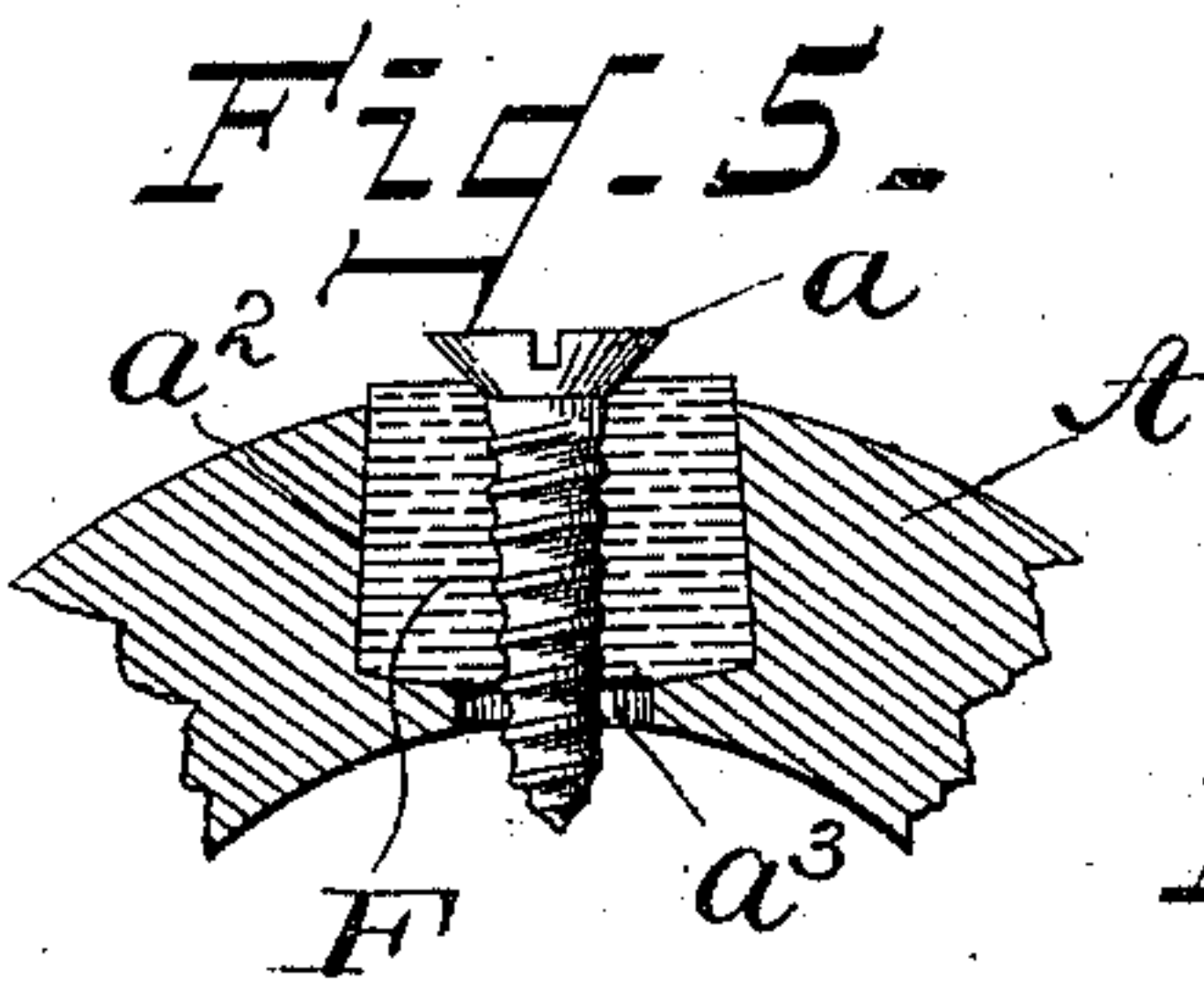
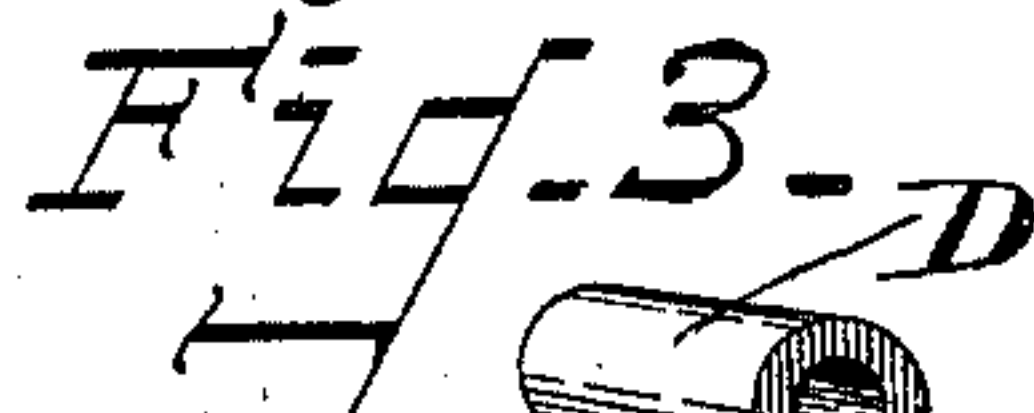
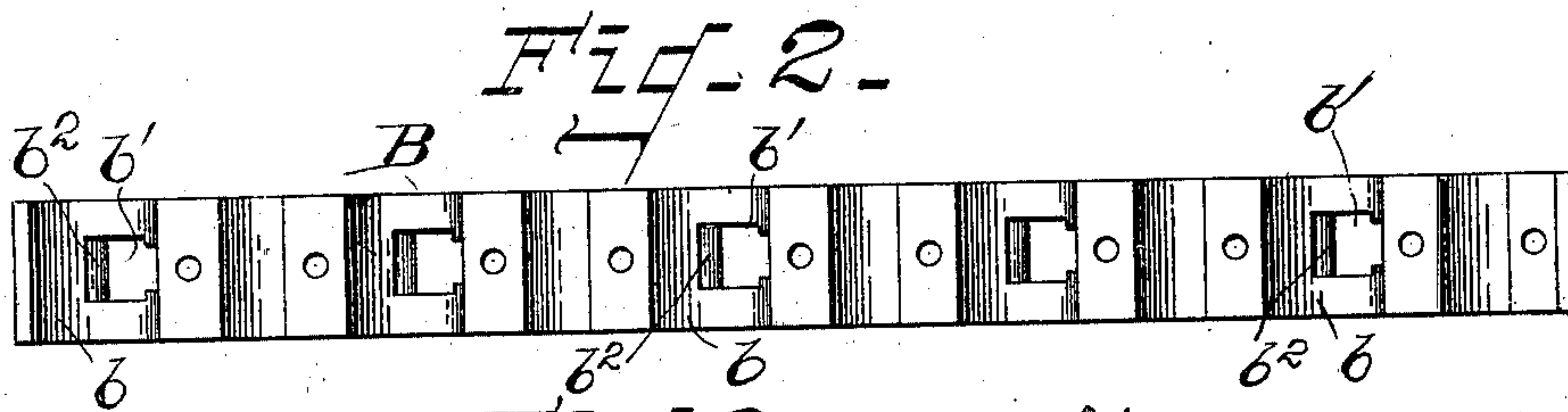
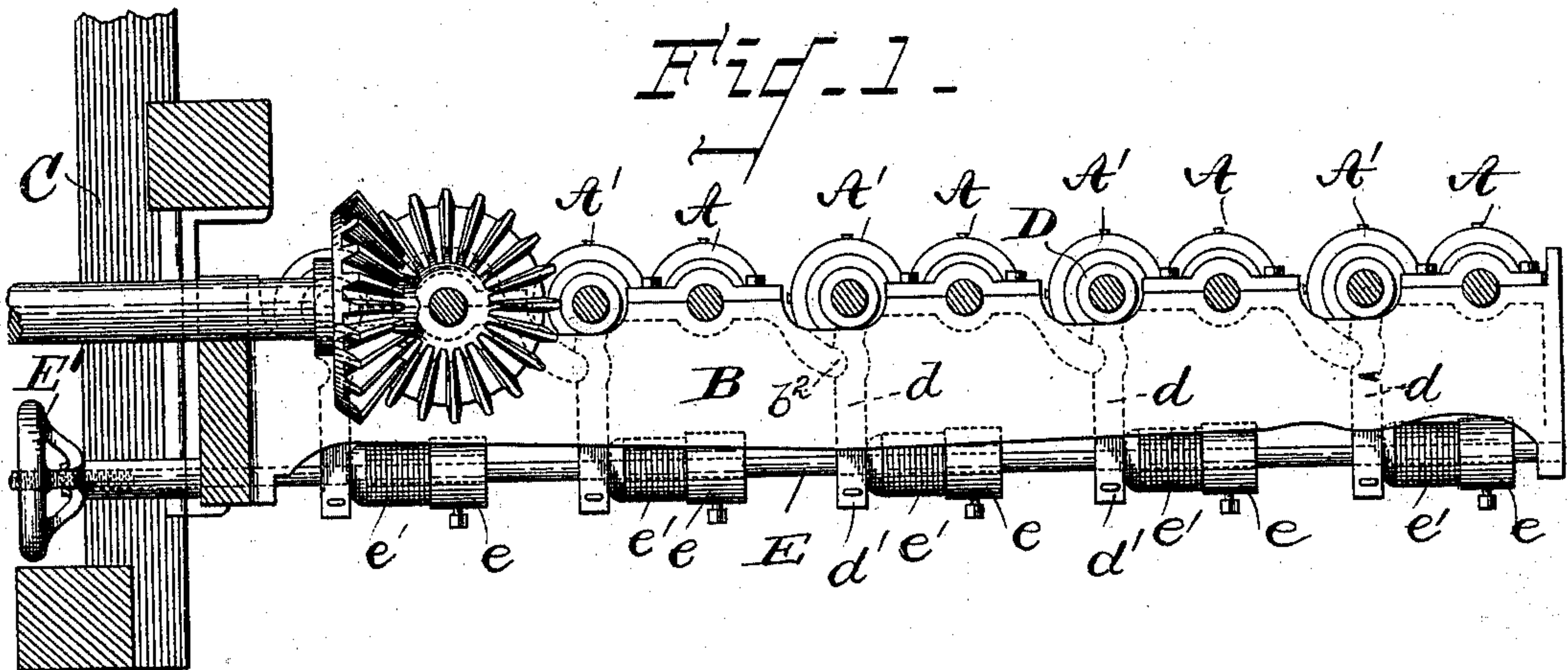


(No Model.)

LE ROY W. STEVENS & L. D. SWART.
CORN HUSKING MACHINE.

No. 559,545.

Patented May 5, 1896.



Witnesses:
L. C. Hills.
J. D. Kungberg

Inventors:
Le Roy W. Stevens and Lester D. Swart
By Whitaker & Priest
Attorneys.

UNITED STATES PATENT OFFICE.

LE ROY W. STEVENS AND LESTER D. SWART, OF AUBURN, NEW YORK,
ASSIGNORS TO THE A. W. STEVENS & SON, OF SAME PLACE.

CORN-HUSKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 559,545, dated May 5, 1896.

Application filed November 8, 1895. Serial No. 568,256. (No model.)

To all whom it may concern:

Be it known that we, LE ROY W. STEVENS and LESTER D. SWART, citizens of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Corn-Husking Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention consists in the novel features of construction hereinafter described, reference being had to the accompanying drawings, which illustrate one form in which we have contemplated embodying our invention, and said invention is fully disclosed in the following description and claims.

Referring to the said drawings, Figure 1 is an end view of a portion of a corn-husking machine, showing one of the bridge-trees for supporting the husking-rolls and the adjusting devices for the movable rolls. Fig. 2 represents a top plan view of the said bridge-trees. Fig. 3 is a detail view of one of the movable bearings. Fig. 4 represents a top plan view of portions of a pair of our improved husking-rolls. Fig. 5 represents a transverse sectional view of a portion of one of said rolls. Fig. 6 represents the mounting of a single pair of rollers.

In the drawings we have shown such parts of a corn-husking machine as will enable our invention to be clearly understood.

In the drawings, A A represent the stationary husking-rolls constructed according to our invention and supported in stationary bearings at each end in one of the bridge-trees B, the said bridge-trees being suitably supported in the frame of the machine, a portion of which is shown at C in Fig. 1.

A' A' represent the movable husking-rolls. The husking-rolls are arranged in pairs, one roll of each pair being supported in stationary bearings and the other in adjustable bearings.

According to our invention we provide pivotally-mounted bearings for the movable rolls, which are adjustable simultaneously by means of a single operating device to adjust all of the movable rolls, and which allow each

of said movable rolls to yield independently in case of a hard substance passing between it and its respective stationary roll. In this instance the bridge-tree B is provided with a series of recesses $b\ b$ to receive the bearings for the movable rolls, and in said recesses are apertures $b' b'$, extending downward through the bridge-trees to receive the downwardly-extending adjusting-arms with which said bearings are provided, one wall of each of said apertures being provided with a semi-cylindrical rib b^2 . One of the bearings is shown in detail in Fig. 3 and consists of the bearing proper, D, provided with a downwardly-extending arm d , having a semicylindrical recess d^2 therein to engage the rib b^2 of the bridge-tree and having its lower end recessed to form a forked portion d' . The bearings are placed in position in the recesses b of the bridge-tree the arms d extending downwardly through the apertures b' and the rib b^2 of each engaging the recess d^2 of one of said arms, thus forming a pivotal connection between the bearing and the bridge-tree.

E represents a transversely-extending adjusting-rod mounted to slide longitudinally in the frame beneath the bridge-tree, and the slotted or forked portion d' of each bearing-arm is placed over this rod, as shown in Fig. 1. The adjusting-rod E is provided adjacent to each of said arms d with a collar e , adjustably secured to said rod by means of a set-screw, and between each of said collars and its corresponding arm d is interposed a cushion e' , which consists, preferably, as shown in this instance, of rubber, although we may use a coiled spring or other cushioning device if found preferable. At one end the rod E is screw-threaded and provided with a screw-threaded hand-wheel E' or other operating means for moving said rod longitudinally. It will be understood that the bridge-trees at both ends of the rolls A A' are constructed alike and provided with the adjusting devices just described, so that the movable rolls are adjusted simultaneously by a single adjusting device at each end of said rolls. It will also be seen that by means of the cushions e' each movable roll is allowed an independent yielding movement to permit the passage of a hard substance when necessary, thus reliev-

ing the rolls from strains which they would otherwise have to bear. It will also be seen that the collars *e* can be independently adjusted upon the rod E when necessary, as in
 5 setting up the machine or at any other time when such independent adjustment may be desirable. The movable bearings of any roll may be removed when desired without disturbing the other rollers by loosening the
 10 collars *e* on the rod E and taking out said bearings.

In Figs. 4 and 5 we have shown our improved husking-rollers, each of which is provided with husking-pins *a*, projecting beyond the sur-
 15 face of the roll and engaging or corresponding with recesses *a'* in the opposing roll, which prevent injury to said pins. In Fig. 5 we have shown a portion of one of said rolls, showing the manner of seating the pins therein. The
 20 roll is provided at suitable intervals with a recess *a²* of greater diameter at its bottom, as shown, the bottom of the recess being preferably provided with a smaller aperture or recess *a³*. In the recess *a²* is placed an elas-
 25 tic seating for the pin, which consists, preferably, of a plug F of rubber, which is forced into the said recess and is retained therein by the peculiar shape thereof, the mouth of the recess being contracted, as before described.
 30 The pin *a*, which is preferably made in the form of an ordinary screw, is inserted and screwed into the elastic seating F and preferably projects beyond the same into the ap-
 35 erture or recess *a³* in the bottom of the recess *a²*, as shown. This screw or pin has a flaring head, the edges of which penetrate the husk and tend to tear it from the ear, during which operation the elastic seating permits a slight
 40 yielding of the pin laterally and also outwardly, which renders its operation more effective. The end of the pin will, however, strike against the walls of the aperture or recess *a³* if the pin is drawn laterally too far, thus limiting the movement of the pin. In
 45 case the end of the pin strikes a hard substance which passes between the rolls it will be forced inward, but will resume its normal position by reason of the elastic seating as soon as it disengages the obstruction. It will be
 50 apparent that if the pins were seated in such a substance as wood a hard substance would drive them in flush with the surface of the roll and destroy their utility. By the use of the rubber seating the pins are protected from
 55 corrosion, and they can be adjusted from time to time to vary the amount projecting beyond the surface of the roll.

What we claim, and desire to secure by Letters Patent, is—

60 1. In a corn-husking machine the combination with a series of husking-rolls supported in stationary bearings, and a movable roll adjacent to each of said stationary rolls and devices for simultaneously adjusting all of
 65 said movable rolls and holding them in their adjusted positions, substantially as described.

2. In a corn-husking machine the combina-

tion with a series of husking-rolls supported in stationary bearings and a movable husking-roll adjacent to each of said stationary
 70 rolls, of a tension device for each of said movable rolls, and devices for simultaneously adjusting all of said tension devices, substantially as described.

3. In a corn-husking machine the combina-
 75 tion with a series of husking-rolls supported in stationary bearings and a movable husking-roll adjacent to each of said stationary rolls, movable bearings for said movable rolls, a tension device for each of said movable
 80 bearings, a rod engaging all of said tension devices and adjusting devices for said rod, for adjusting all of the said tension devices simultaneously, substantially as described.

4. In a corn-husking machine, the combina-
 85 tion with a series of stationary husking-rolls and a movable roll adjacent to each of said stationary rolls, of pivotally-mounted bearings for said movable rolls, provided with de-
 90 pending arms, an adjusting-rod engaging the depending arms of all of said bearings at one end of said rolls, an adjustable collar on said rod adjacent to each of said arms, a tension
 95 device interposed between each of said arms and its respective collar, and means for moving said rod and collars longitudinally where-
 by provision is made for adjusting said tension devices separately and simultaneously, substantially as described.

5. In a corn-husking machine the combina-
 100 tion with a series of stationary husking-rolls and a movable roll adjacent to each of said stationary rolls, of the bridge-tree for supporting one end of each of said rolls, provided with a series of apertures and a pivotal rib
 105 adjacent to each aperture, a movable bearing for each of said movable rolls, having a downwardly-extending arm engaging one of said apertures and having a recess engaging one
 110 of said ribs, and forming therewith a pivotal connection and an adjusting-rod engaging the depending arms of all of said bearings, substantially as described.

6. In a corn-husking machine the husking-
 115 roll provided with a series of recesses, an elastic seating located in said recesses and husking-pins adjustably secured in said elastic seatings, substantially as described.

7. In a corn-husking machine the husking-
 120 roll provided with recesses having contracted openings adjacent to the surface of the roll, an elastic seating fitting in each of said recesses, and a husking-pin, secured in said elastic seating, substantially as described.

8. In a corn-husking machine the husking-
 125 roll provided with recesses, an elastic seating secured in each of said recesses and a husking-pin having a screw-threaded portion secured in said seating whereby said pin may be adjusted longitudinally, substantially as
 130 described.

9. In a corn-husking machine the husking-
 roll provided with recesses, each of said recesses being provided with an aperture in its

bottom, of less diameter than the said recess, an elastic seating secured in each of said recesses, a husking-pin extending through said seating and into said bottom aperture, the walls of said bottom aperture forming stops to limit the lateral movement of said pin in said elastic seating, substantially as described.

10. In a corn-husking machine the husking-roll, provided with recesses each having a contracted opening adjacent to the surface of the roll, an elastic seating located in each of said recesses and held therein by said con-

tracted opening and a husking-pin having a flaring head and a screw-threaded stem engaging said elastic seating, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

LE ROY W. STEVENS.
LESTER D. SWART.

Witnesses:

CHARLES B. QUICK,
WALTER L. FAY.