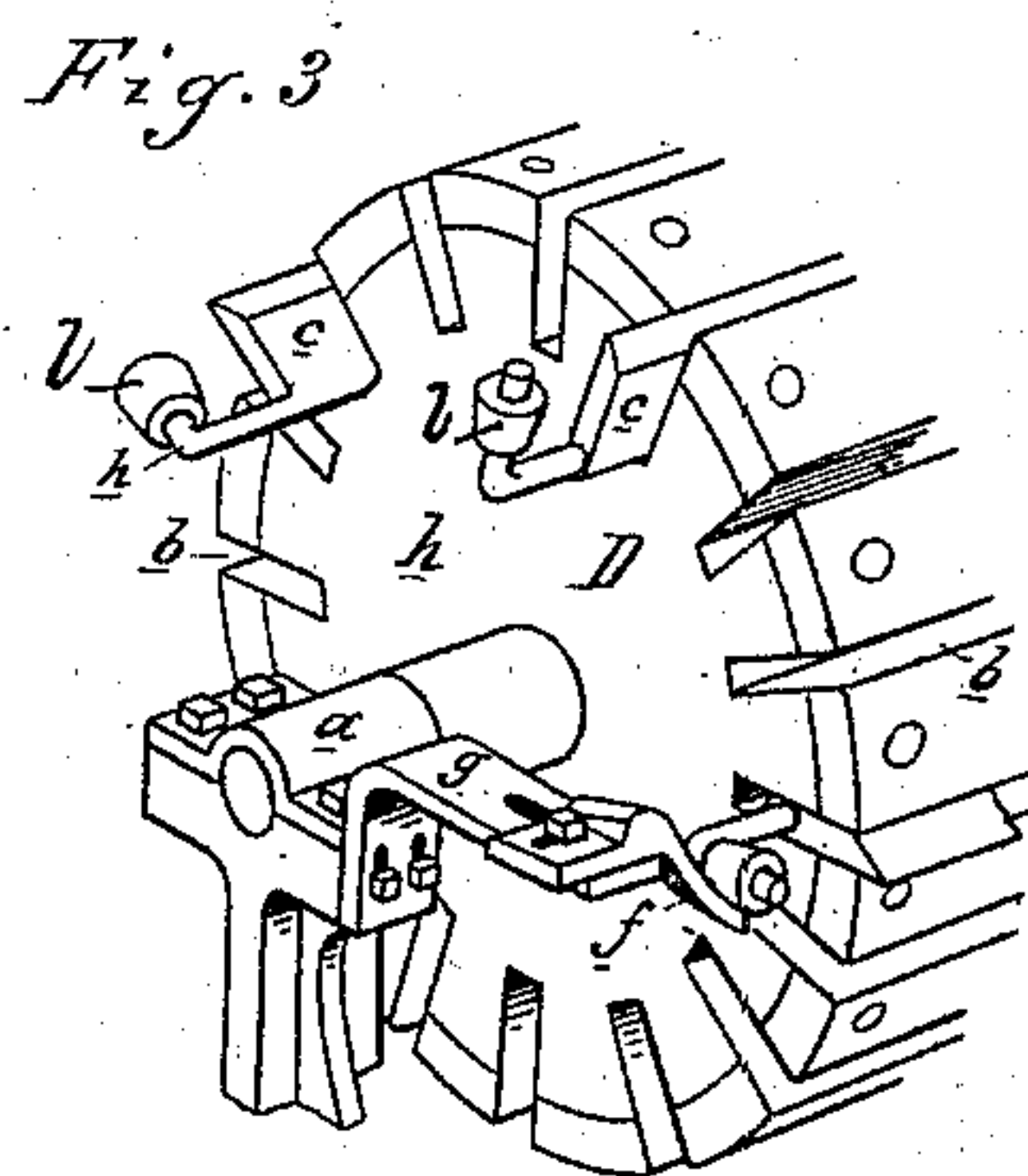
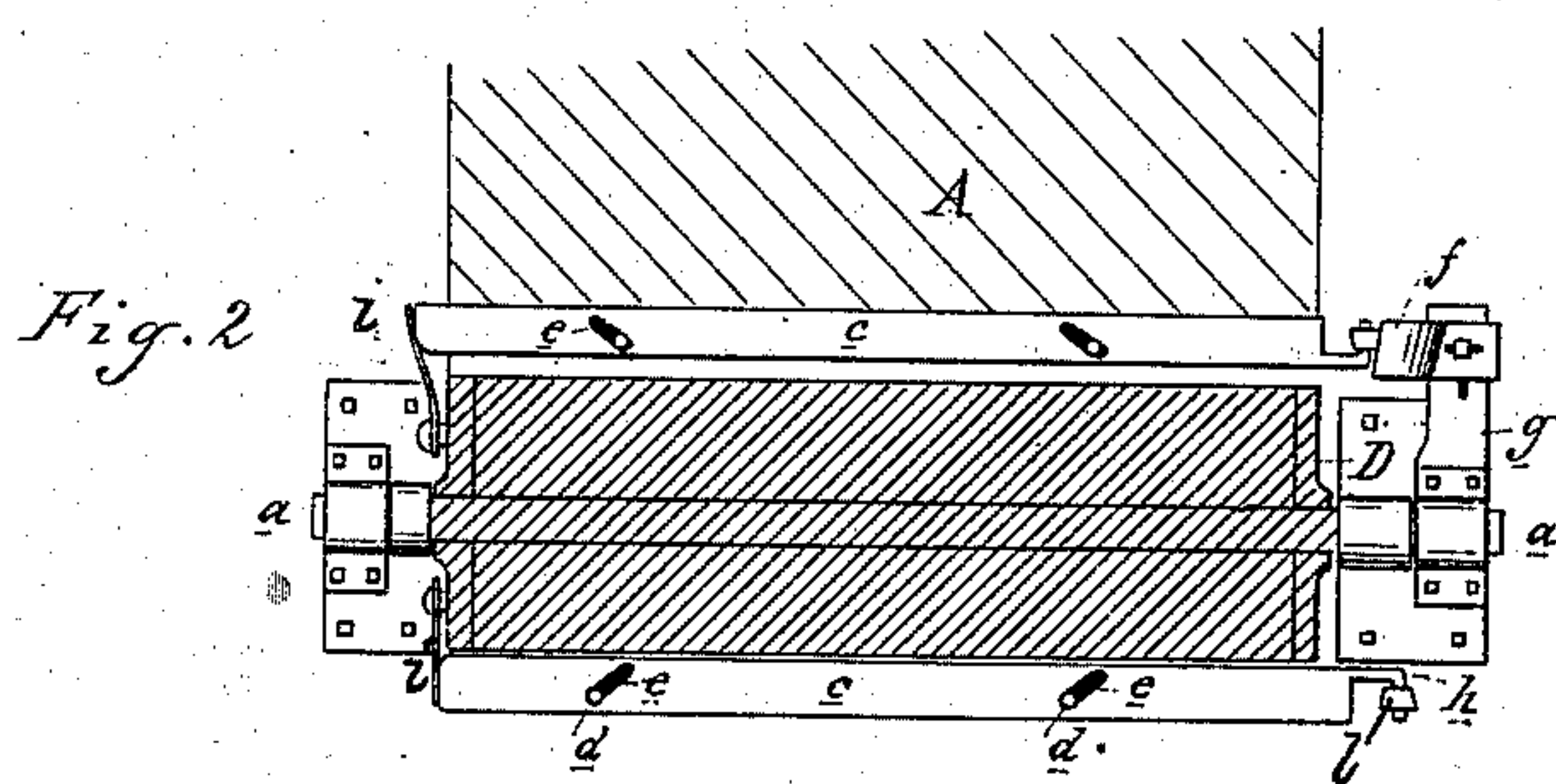
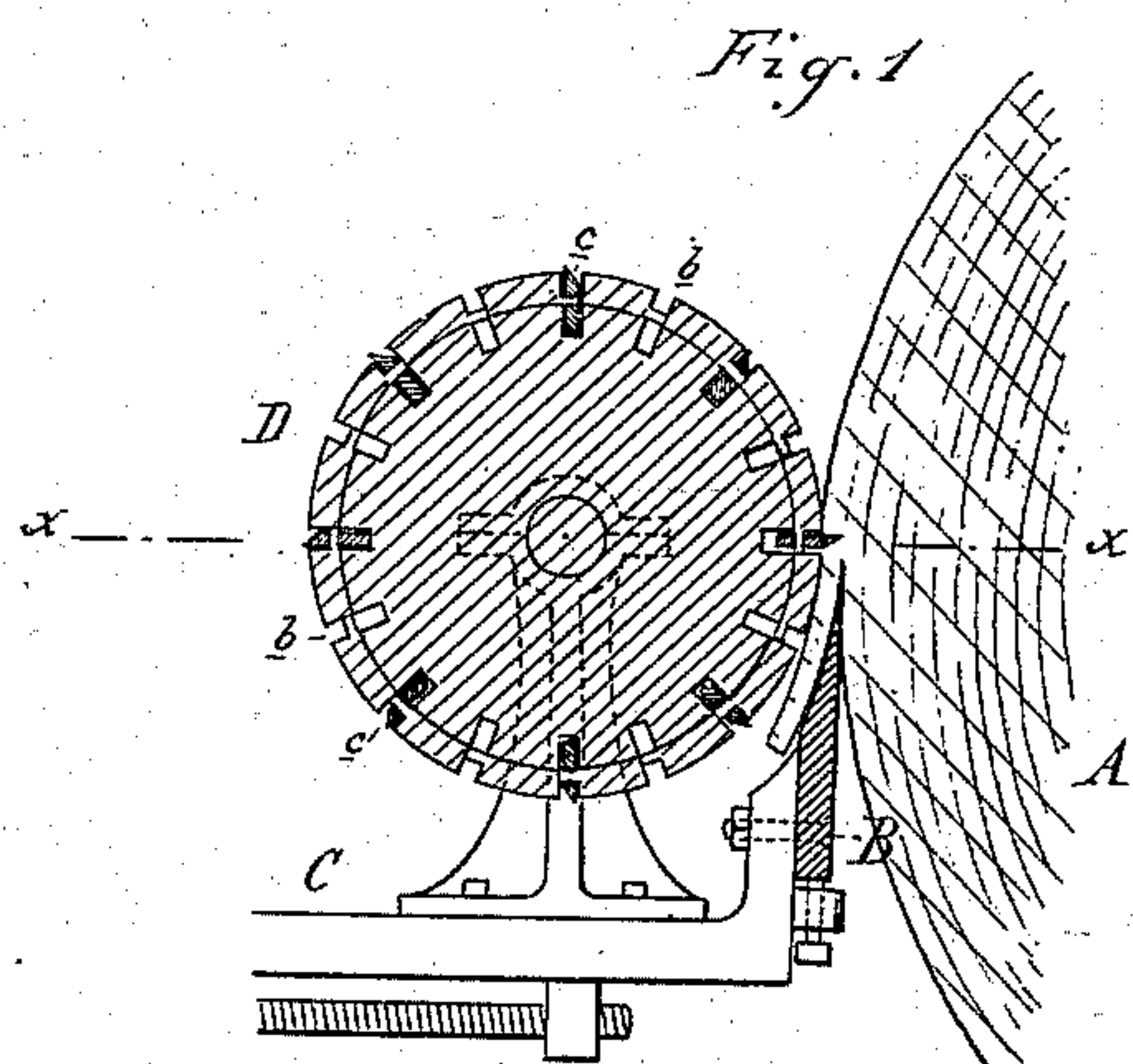


(No Model.)

F. L. WILSON.
Veneer Cutting Machine.

No. 239,903.

Patented April 5, 1881.



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UNITED STATES PATENT OFFICE.

FITZLAND L. WILSON, OF SAGINAW, MICHIGAN.

VENEER-CUTTING MACHINE.

SPECIFICATION forming part of Letters Patent No. 239,903, dated April 5, 1881.

Application filed January 3, 1881. (No model.)

To all whom it may concern:

Be it known that I, FITZLAND L. WILSON, of the city and county of Saginaw, and State of Michigan, have invented an Improvement in Veneer-Cutting Machines, of which the following is a specification.

The nature of my invention relates to an attachment for such veneer-cutting machines in which the veneer is cut from a revolving log; and the object of my invention is to obtain strips of veneer of desired dimensions as required for wooden boxes of assorted sizes, hoops, basket-splints, &c.

Heretofore the veneer, whenever it was desired to obtain it of given dimensions, was cut from specially-prepared veneer-blanks; but with my attachment dimension-veneer can directly be obtained from the log. I obtain this object by the device illustrated in the accompanying drawings, in which—

Figure 1 shows a cross-section of a veneer-cutting machine of known construction, with my device attached. Fig. 2 is a horizontal section on the line *xx* in Fig. 1. Fig. 3 is a perspective end view of my attachment, showing the mechanism for operating the knives.

Similar letters refer to similar parts in the different views.

In the drawings, *A* represents a revolving log.

B is a knife attached to the carriage *C*, and fed toward the log *A* by any of the well-known devices.

Secured upon the carriage *C* and journaled in suitable boxes, *a*, is the roll *D*. This roll *D* is of corresponding length with the log, *A*, operated upon, and is made to bear or press upon the revolving log slightly in advance of the cutting-edge of the knife *B*, thus fulfilling the duty of a pressure-roll, and as the roll *B* is journaled in boxes, its frictional contact with the log will make it revolve. The roll *D* has upon its face a series of slits or recesses, *b*, parallel to its axis, and of sufficient width and depth to allow the knives *c* to enter far enough to bring their cutting-edges even, or nearly so, with the face of the roll *D*. These knives *c* are held in the recesses *b* by the stationary pins *d d*, passing through the oblique slots *e e* in the knives.

f is an inclined plane adjustably secured to

the arm *g*, which is also adjustably secured to one of the boxes *a* of the roll.

h is a bent arm, one of which is secured to each of the knives *c*. Springs *i* are secured to the head of the roll *D* and press against the free ends of the knives *c*.

In practice, the log *A*, while the machine is in operation, will cause the roll *D* to rotate by frictional contact therewith, and the stationary inclined plane *f* being properly adjusted, the arms *h* will impinge upon it and be pushed laterally, and thereby force the knives *c* out of their recesses, owing to the oblique slots *e* and pins *d*. The inclined plane is so adjusted that it operates upon that knife whose cutting-edge is contiguous to the log *A*, thus forcing it to perform a drawing cut along the face of the log, and if the depth of said cut corresponds to the thickness of the veneer cut by the knife *B*, the latter will separate from the log veneer strips of a width corresponding to the distances between the knives when measured on the face of the roll. As soon as the arm *h* has passed over the inclined plane *f*, the spring *i* will immediately withdraw the knife *c* into its recess.

By employing a roll, *D*, with the knives *c* spaced at equal but small distances apart, the same roll may be employed for cutting veneer strips of greater width by taking certain knives out or rendering them otherwise inoperative.

Ordinarily I have the log *A* cut to a length corresponding to the length desired for the veneer strips, especially if these veneer strips are intended for use as hoops or splints; but for very short veneer strips multiples of the required length are often desirable.

By the use of the above-described improvements in the cutting of veneer strips not only a great saving of material is effected over the old way, but the veneer strips obtained are of a more uniform grain than when obtained from the usual blank; and as the roll *D* is only moved by frictional contact with the log *A*, it will be seen that if the knives *c* are properly spaced veneer strips of great uniformity of dimension can be obtained, which is of great importance when machinery is employed for the manufacture of the numerous articles in which dimension-veneer is used.

I do not intend to limit myself to the use of

the roll D as a pressure-roll in relation to the knife B, as it might be employed in advance of the usual pressure-roll and be held in contact with the log by weights or springs. If
5 the roll D contains a great number of knives, veneers of various width may be cut with the same roll; but a roll with only one knife may be employed where the work of the veneer-machine is confined to one size only. If the
10 roll D contains a sufficient number of knives, the contact between said knives and the log will then often be sufficient to move the roll D and dispense with the frictional contact between said roll and the log.

15 I do not claim the exact construction of my device as shown, as its adaptation to different styles of veneer-cutting machines will require various modifications. I also do not claim the particular mechanisms shown for giving to the
20 knives *c* a drawing cut, as such object can be obtained in many ways; but

What I claim as my invention is—

1. In a veneer-machine, a knife for separating the veneer from the log, a roll operated by
25 frictional contact with the log, and a device for gradually decreasing the distance between the centers of the log and roll, in combination with one or more knives sliding in said roll and constructed to cut into the face of the

log, and mechanism for operating said sliding 30 knives, substantially as and for the purpose specified.

2. In combination with a veneer-cutting machine, a roll provided with one or more diagonally-sliding knives, operated by means sub- 35 stantially as described, and adapted to cut into the log in advance of the veneer-cutting knife, for the purpose of obtaining strips of veneer.

3. In combination with the knife B of a veneer-cutting machine, a pressure-roll actuated by frictional contact with the log, and provided with one or more diagonally-sliding knives, operated by means substantially as described, and adapted to cut into the face of the 45 log, whereby in the further operation of the knife B veneer strips of desired width are obtained.

4. The combination, with the roll D, driven by frictional contact with the log, of the knives 50 *c*, sliding in recesses in the roll, and provided with inclined slots *e*, springs *i*, rollers *l*, and adjustable incline *f*, substantially as and for the purpose described.

FITZLAND L. WILSON.

Witnesses:

H. S. SPRAGUE,
E. W. ANDREWS.