

No. 750,107.

PATENTED JAN. 19, 1904.

E. F. GIBBONS.
CUTTING MACHINE.
APPLICATION FILED JULY 21, 1903.

NO MODEL.

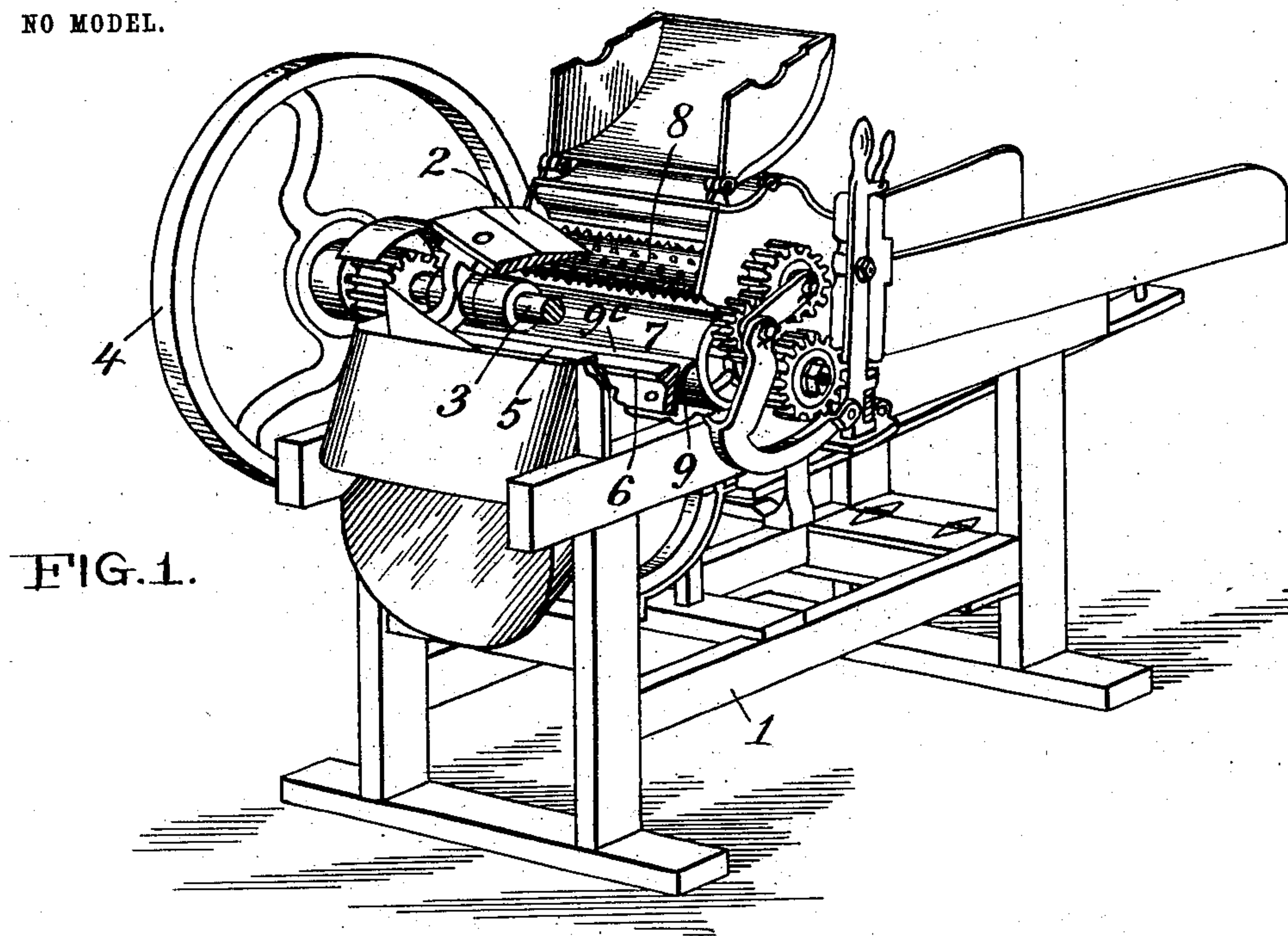


FIG. 2.

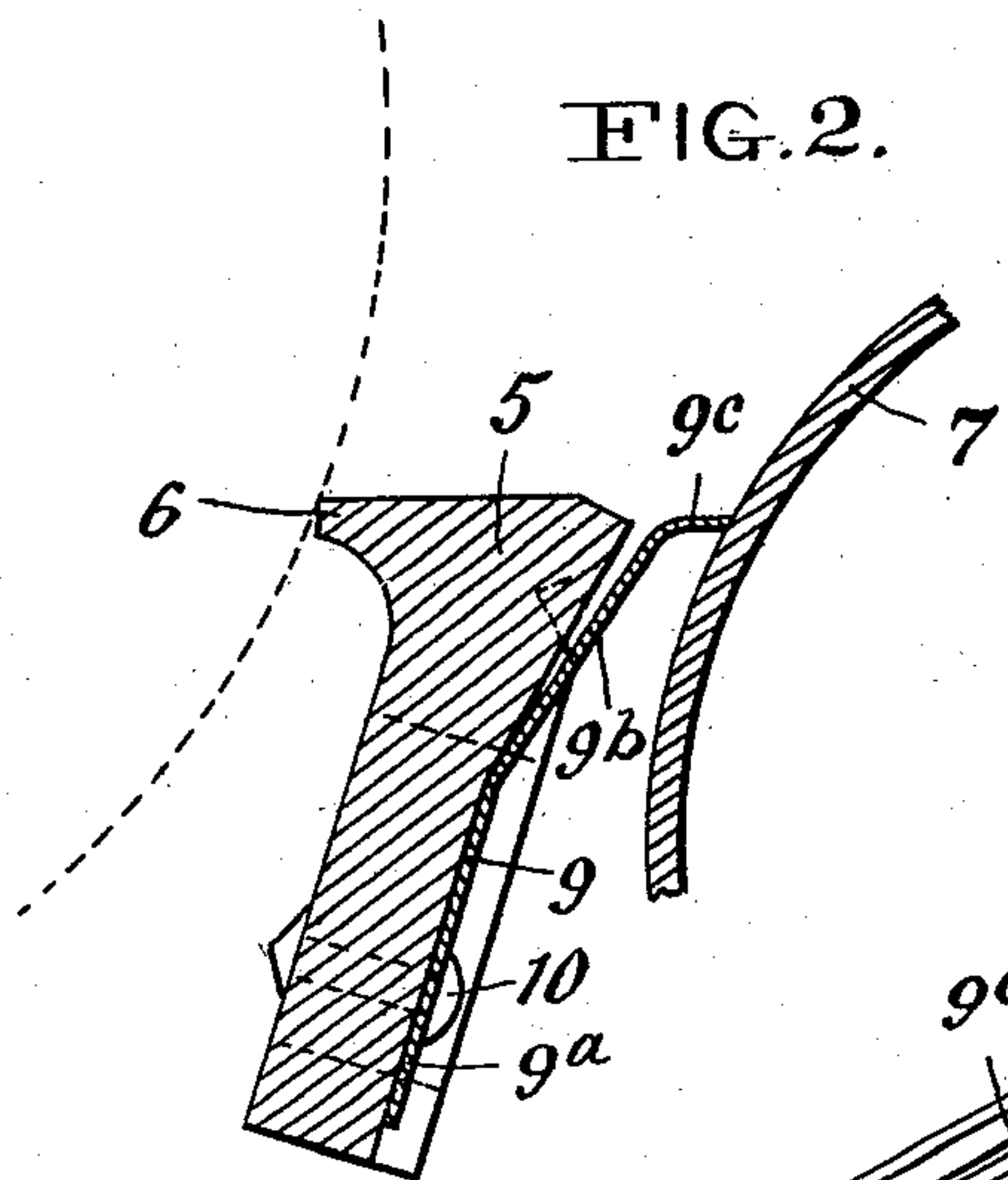
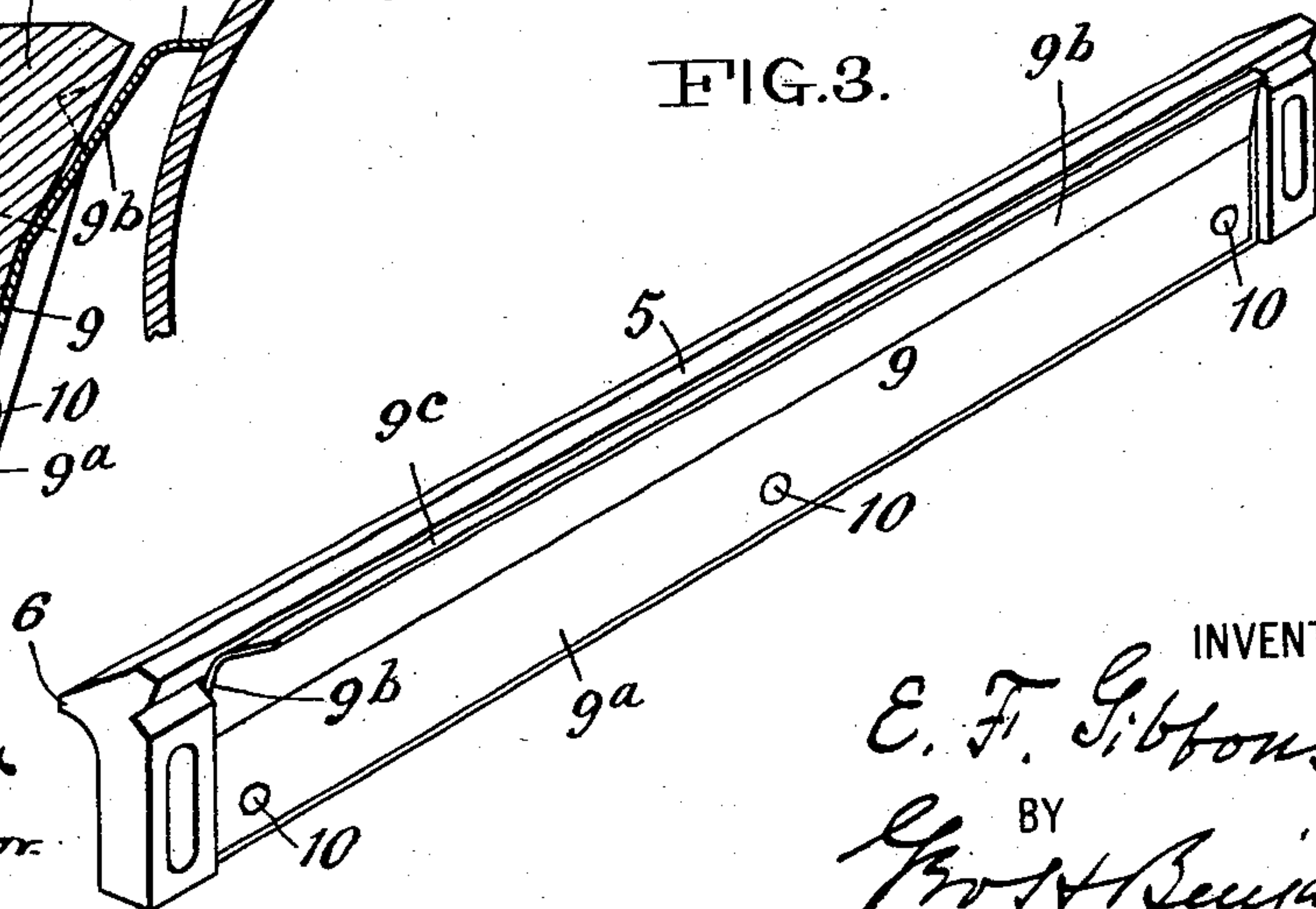


FIG. 3.



WITNESSES:

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CUTTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 750,107, dated January 19, 1904.

Application filed July 21, 1903. Serial No. 166,463. (No model.)

To all whom it may concern:

Be it known that I, EDWARD F. GIBBONS, a citizen of the United States, residing at Salem, county of Columbiana, State of Ohio, have invented certain new and useful Improvements in Cutting-Machines, of which the following is a specification.

My invention relates in general to cutting-machines, and more specifically consists of an attachment designed to be applied to feed-cutting machines.

The preferred form of my invention is illustrated in the accompanying sheet of drawings, in which—

Figure 1 is a perspective view of an approved form of feed-cutting machine, parts being broken away to show my invention applied thereto. Fig. 2 is a vertical section taken through the cutter-bar and showing a fragment of the lower feed-roll and my invention attached thereto, and Fig. 3 is a perspective view of the cutter-bar with my invention attached thereto.

Throughout the drawings like reference-figures indicate like parts.

1 represents the cutting-machine generally and its supporting-frame. This has a set of revolving knives 2, mounted on a shaft 3, which has the usual fly-wheel 4. The revolving knives coöperate with a stationary cutter-bar 5, which has a shearing edge 6, against which the revolving knives operate, as indicated by the dotted arc in Fig. 2.

In order to feed the material to the knives, one or more feed-rollers are used. I have shown a lower feed-roller 7 and an upper feed-roller 8, the latter being provided with projections or corrugations, which, however, are not essential in any way to the operation of my invention.

The novel feature constituting my invention consists of the spring-plate 9, which acts as a guard or bridge to prevent material being carried down between the feed-roller 7 and the back of the cutter-bar 5. As shown, this spring-plate 9 has its lower half portion 9^a adapted to fit snugly against the back of the cutter-bar, being held in position by rivets 10 or other suitable means. The upper half por-

tion 9^b of the plate 9 is bent slightly or otherwise offset from the cutter-bar 5, so as to clear it from the same and allow a certain amount of play to said upper half portion of the spring-plate. The extreme upper portion 9^c of the plate 9 is bent outwardly and horizontally, as shown, in a plane approximately at right angles to that of the lower half 9^a of said plate, so that its extreme upper or outer edge bears against the face of the lower feed-roller 7 with a regulated amount of spring-pressure.

The operation of my invention will be apparent from the foregoing description. When the fly-wheel 4 is rotated and the material is fed up to the feed-rollers, the same will grasp the material and force it forward over the cutter-bar 5, where as it advances it will be caught by the downward movement of the revolving knives 2, shearing against the edge 6 of the cutter-bar.

The foregoing is the usual mode of operation of a machine of this type; but in the absence of my invention there is a tendency for a certain portion of the material to be carried down by the lower feed-roller 7 and escape the action of the knives by passing between the feed-roller and the stationary cutter-bar 5 or becoming packed between the same, and thereby clogging the action of the machine. My guard-plate 9, pressing closely against the face of the roller 7 with a light spring-pressure and bridging over the space between the roller and the cutter-bar, as clearly shown in Fig. 2, prevents the above-described action of the material, clears the surface of feed-roller 7, and compels all the material fed to the machine to be delivered to the cutters.

It is evident of course that various changes could be made in the details of the apparatus, described and shown in the drawings without departing from the true spirit and scope of my invention. Other forms of spring-plate might be used, so long as they efficiently bridge over the space between the cutter-bar and the roller, and a spring-plate of the nature described might be employed in similar relation to other forms of cutter-bar and to machines having somewhat-different relative location of the knives and feed-roll-

ers. Such resulting modifications, however, would not involve other than mechanical skill and would leave the various constructions so produced still within the boundaries of my invention.

Having thus described my invention, I claim—

1. In combination with a cutting-machine having a stationary cutter-bar and a revolving feed-roller, a spring guard-plate fastened to the cutter-bar near the lower edge of said plate, and having its upper portion bent outwardly and horizontally and its upper edge spring-pressed upon the surface of the feed-roller.

2. In a cutting-machine the combination of a stationary cutter-bar, a revolving feed-roller and a spring guard-plate clamped at its lower

part to the cutter-bar, but having its upper half slightly offset from the cutter-bar, and its extreme upper edge in contact with the cylindrical surface of the feed-roller.

3. As an article of manufacture, the herein-described resilient guard-plate for cutting-machines having its lower half adapted for attachment to a cutter-bar, its upper half bent at an angle to clear it from said cutter-bar, and its extreme upper edge bent into a plane approximately at right angles to that of the lower half.

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

EDWARD F. GIBBONS.

Witnesses:

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T. E. WEBB.