

(No Model.)

J. LAIRD & W. MENDHAM.

ROLLER FOR MARKING DESIGNS IN ARTIFICIAL STONE.

No. 397,731.

Patented Feb. 12, 1889.

FIG. 1.

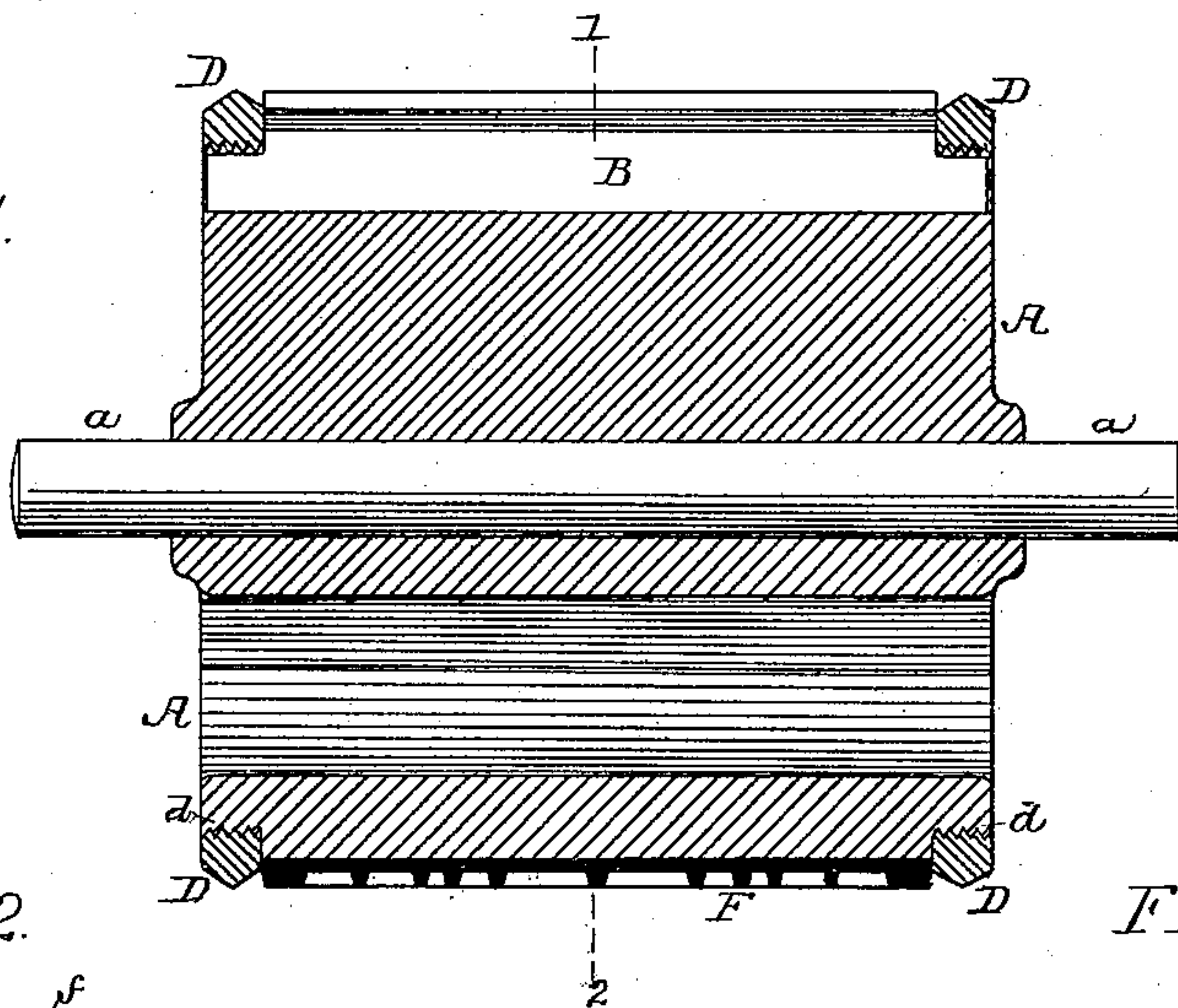


FIG. 2.

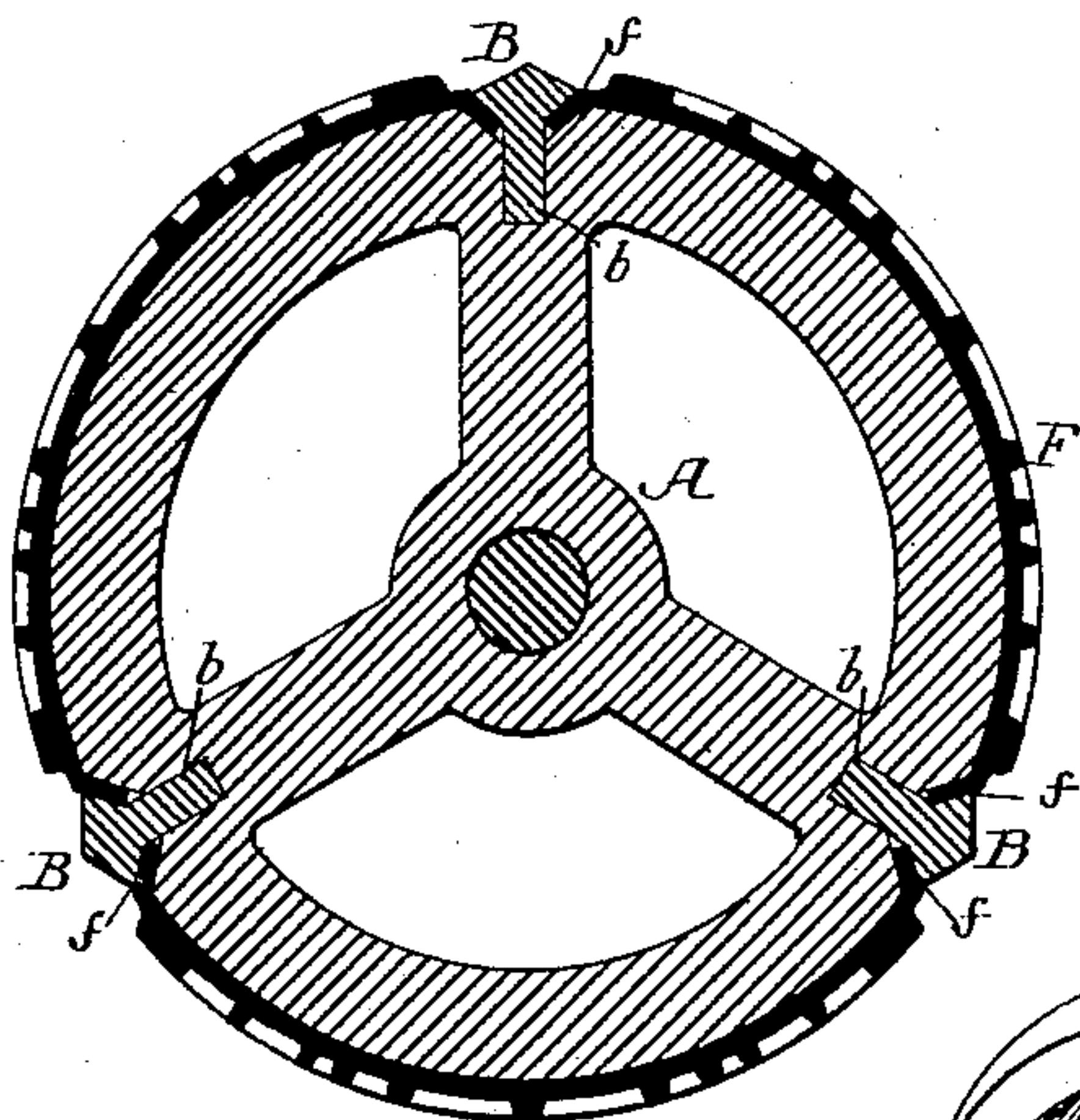


FIG. 3.

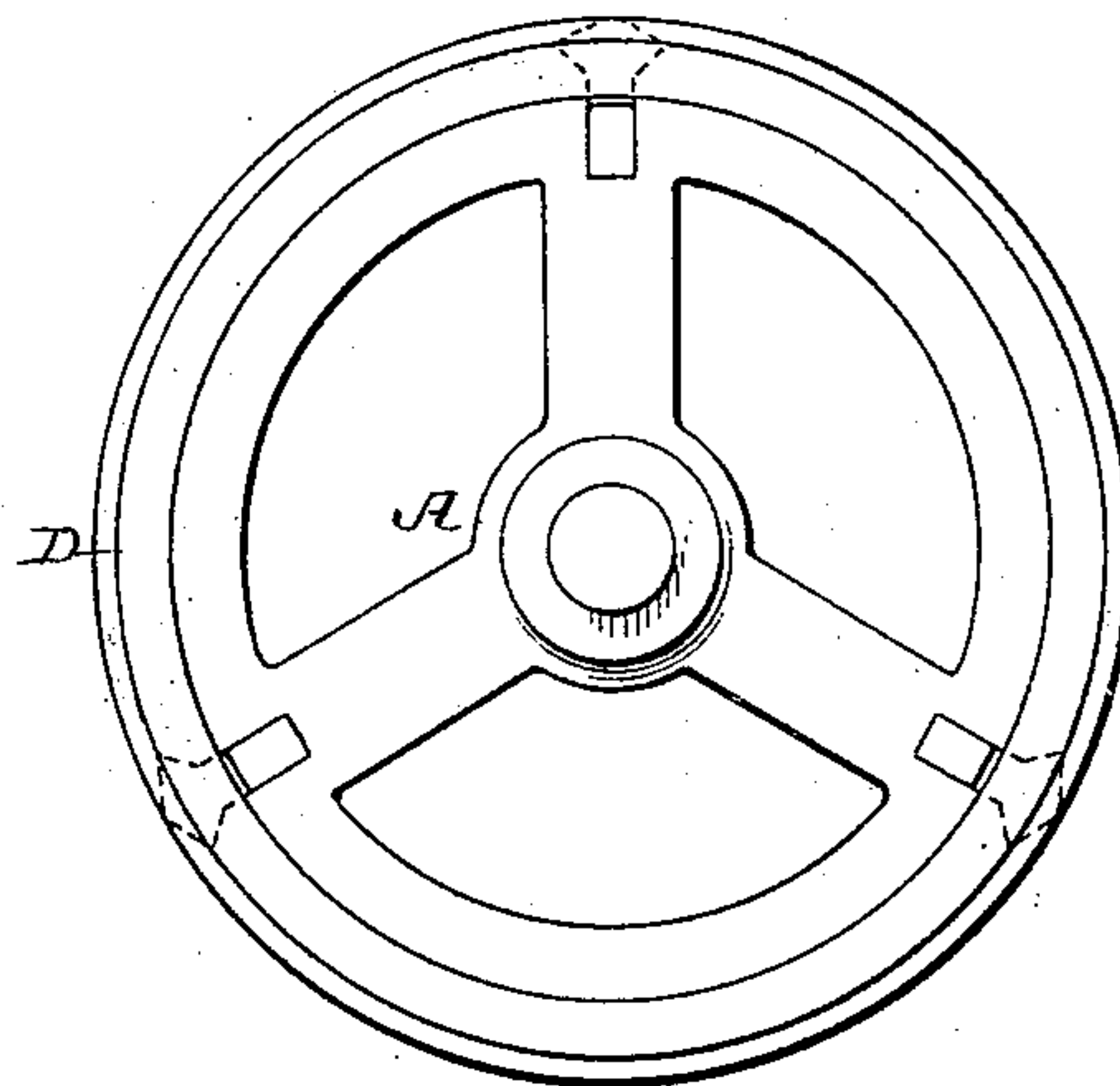


FIG. 6.

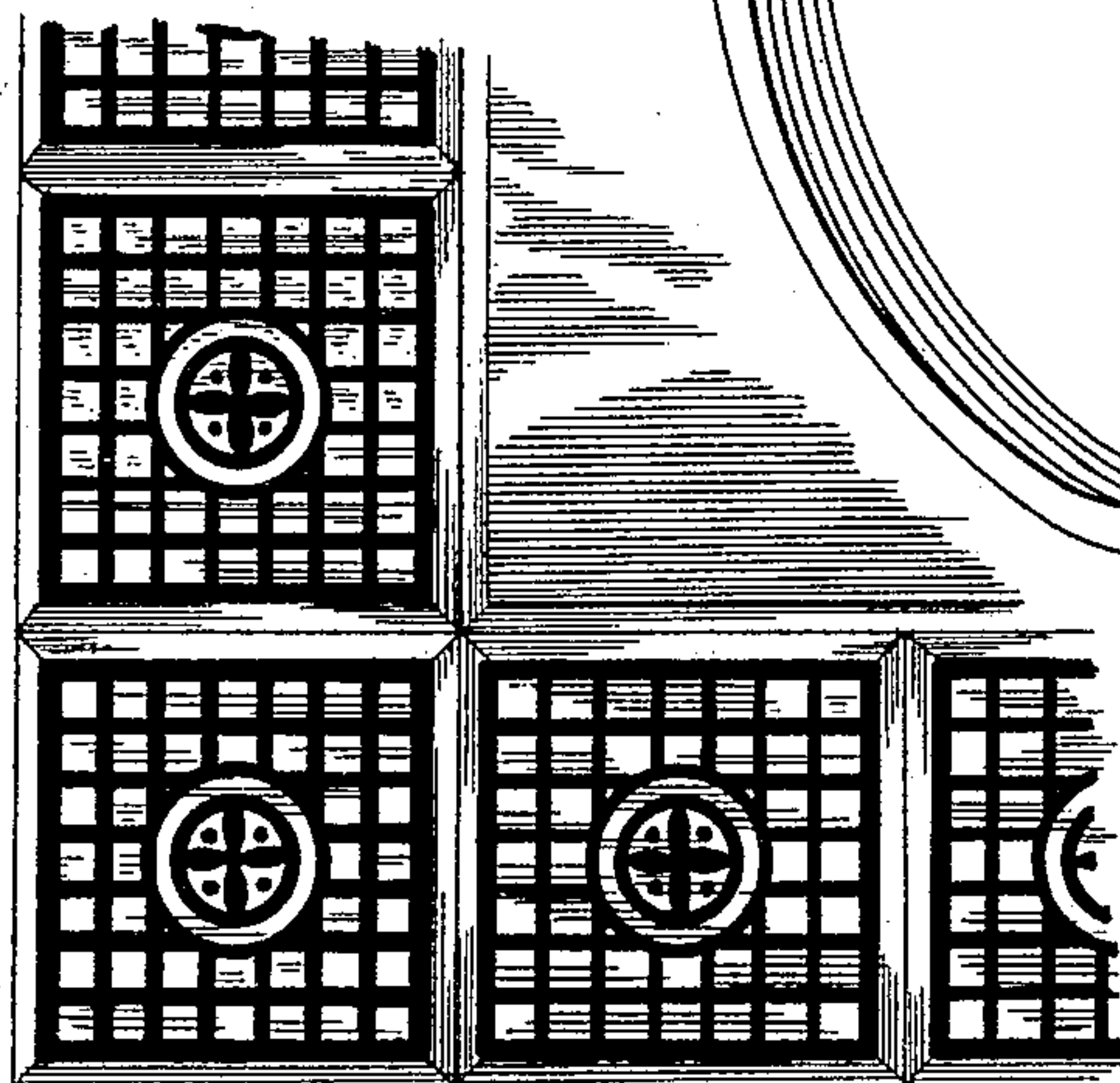


FIG. 5.

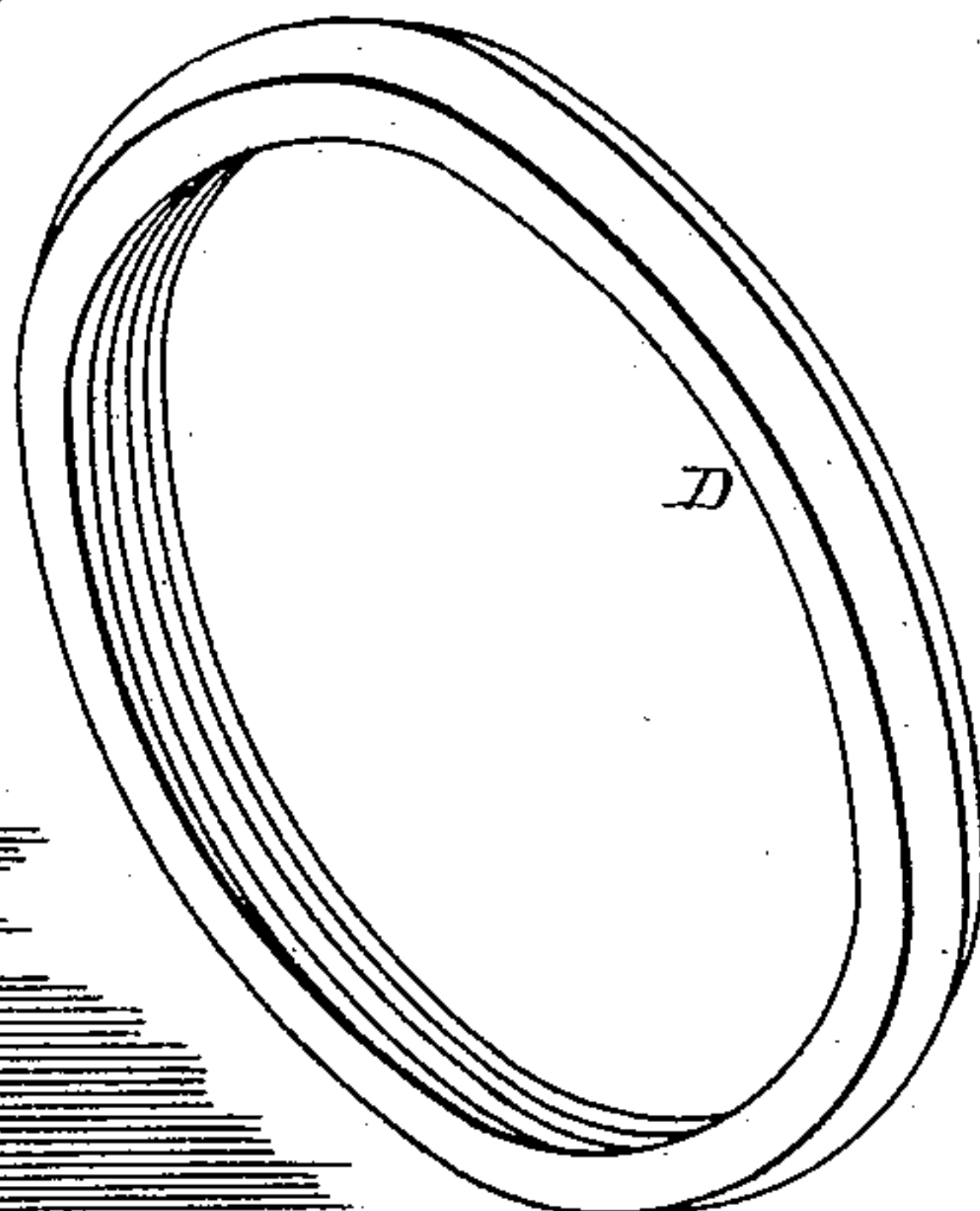
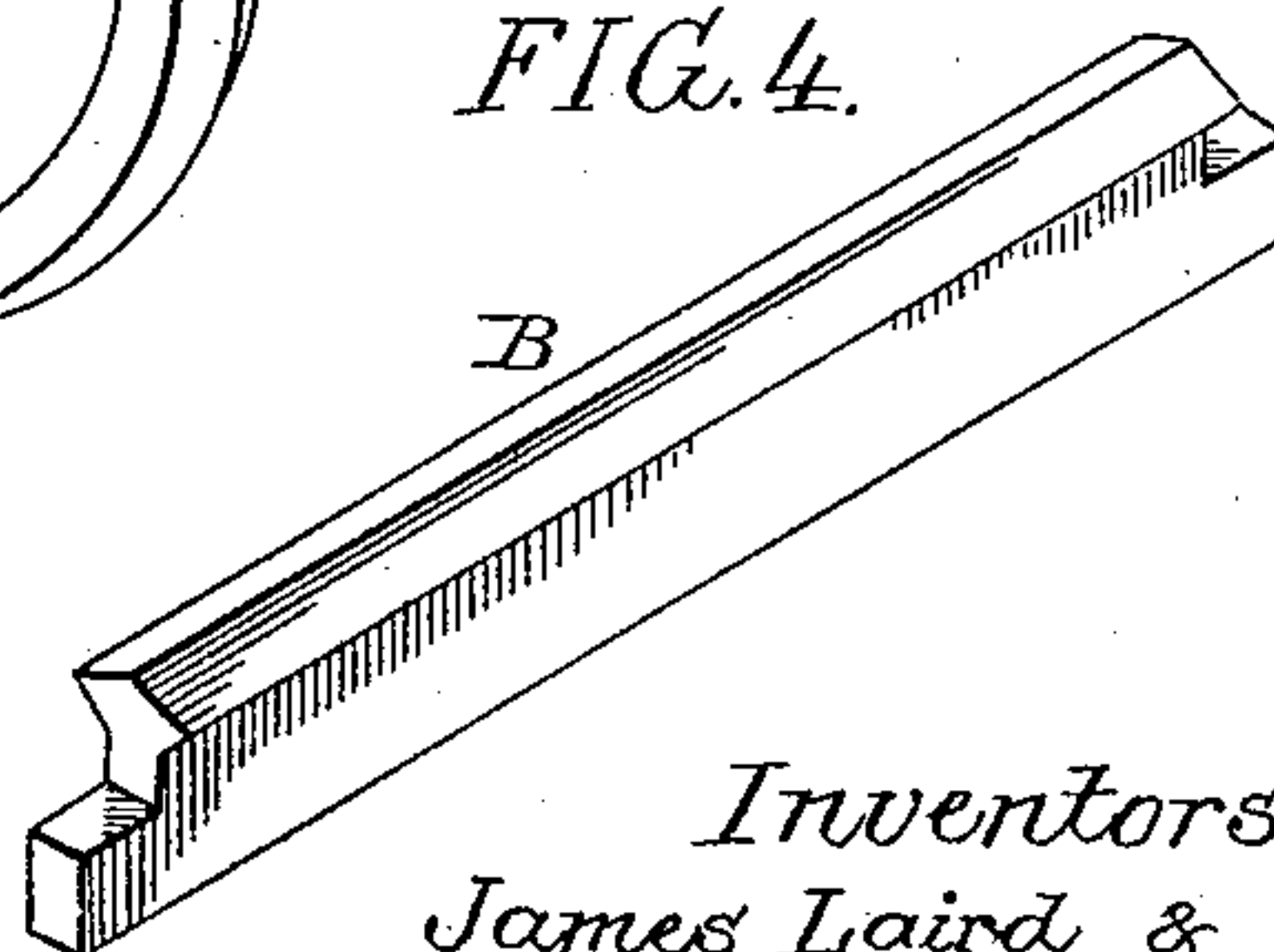


FIG. 4.



Witnesses:
Jno. G. Parker
Hamilton D. Turner

Inventors:
James Laird &
William Mendham
by their Attorneys
Howson & Howson

UNITED STATES PATENT OFFICE.

JAMES LAIRD AND WILLIAM MENDHAM, OF PHILADELPHIA, PENNSYLVANIA.

ROLLER FOR MARKING DESIGNS IN ARTIFICIAL STONE.

SPECIFICATION forming part of Letters Patent No. 397,731, dated February 12, 1889.

Application filed April 19, 1888. Serial No. 271,133. (No model.)

To all whom it may concern:

Be it known that we, JAMES LAIRD and WILLIAM MENDHAM, both citizens of the United States, and residents of Philadelphia, Pennsylvania, have invented a certain Improved Roller for Marking Designs in Artificial Stone, of which the following is a specification.

The object of our invention is to construct a roller for rolling designs in cement pavements or walls, said roller being made in sections and having retainers for the different sections forming the division-lines of the designs, a further object being to have the designs removable so that different designs may be placed on the roller, as circumstances may require.

In the accompanying drawings, Figure 1 is a longitudinal central section. Fig. 2 is a transverse section on the line 1 2, Fig. 1. Fig. 3 is an end view. Fig. 4 is a detached perspective view of one of the retaining-strips. Fig. 5 is a detached view of one of the retaining-rings, and Fig. 6 is a diagram illustrating part of the pavement with a design thereon.

In laying pavements, copings, or garden-walks of artificial stone it is desirable to ornament them, especially at the edges, with some design. This has generally been done by laying separate tiles, and the artificial pavement is then laid between the tiles. This plan is very expensive, and is therefore not in common use; but by providing a roller on which are designs in imitation of the faces of the tiles a very pretty effect is obtained, and by making these rollers as described hereinafter we are enabled not only to make a series of designs of the same character, one after the other, but are enabled also to make a series of different designs.

Referring to the drawings, A is the body of the roller in cross-section, as shown in Fig. 2, and has two spindles, *a a*, formed either by projections cast on the roller, or an independent shaft may be used, as shown. These spindles are adapted to bearings in a suitable handle by which the roller is manipulated.

In the drawings the roller is shown as divided into three sections, so that three separate designs, or three designs of the same char-

acter, may be used; but it will be evident that the surface of the roller may be of more or less sections without departing from our invention. The body of the roller is grooved at *b*, and in these grooves are inserted longitudinal ribs B, having reduced ends *c*, over which fits a screw-ring, D, which is adapted to a reduced screw-threaded portion, *d*, of the body of the roller, as shown in Figs. 1 and 3. Between each of these longitudinal ribs we insert an electrotpe-plate, F, having a design of a suitable character thereon. This plate has plain edges *f f*, as shown in Fig. 2, which are bent down into the beveled portion of the recess *b*. The longitudinal ribs have tapered under sides, *e e*, corresponding with the taper of the longitudinal grooves *b* in the body of the roller, and when the longitudinal ribs are in place and the screw-rings applied to each end the electrotpe-plates are firmly held in position. Thus it will be seen that by merely removing the rings and ribs a new set of electrotypes can be inserted, or a change may be made—as, for instance, where the roller is made in three sections, all the electrotypes may be the same, or two may be of the same design and one of a different design, or all three may be different, so that when the roller forms a design upon the cement the designs will either be all the same or the designs will alternate, two of the same character and one of a different character, or every third design will be the same; and it will be readily understood that when the roller has more than three sections more than this number of designs may be used.

The retaining-ribs B and the rings D form the dividing grooves between each design, as shown in Fig. 6, and in the present instance are tapered, forming tapered grooves in the cement. These rings may have different designs upon them without departing from our invention, and in some instances the roller, instead of being adapted to hold only one design longitudinally, may be so formed as to hold a series of designs longitudinally by merely making the roller of an increased width; or the designs may be made oblong instead of square, as shown.

In the drawings we have shown the rings

screw-threaded and adapted to reduced screw-threaded portions of the body of the roller; but other means of fastening may be used without departing from our invention.

5 When it is desired to form only grooves in the cement for driveways, floors, &c., the electrotrope-plates may be removed from the roller and the rings and ribs alone will form the necessary grooves.

10 We claim as our invention—

1. The combination, with the roller for marking designs upon cement pavements or walls, of the body having longitudinal grooves therein, detachable ribs adapted to said
15 grooves, and detachable screw-rings adapted to be screwed upon each end of said roller and over the ends of the ribs, substantially as described.

2. The combination, with the roller for marking
20 designs upon cement pavements or walls, of the body having longitudinal grooves

therein, design-plates having ends adapted to said grooves, retaining-ribs for said plates, and retaining-rings adapted to the body of the roller and to the ribs, substantially as set
25 forth.

3. The combination, with the roller for marking designs upon cement pavements or walls, of the body having longitudinal grooves therein, concave plates the ends of which are
30 adapted to said grooves, retaining-ribs for said plates, and retaining-rings for the ribs, said rings and ribs forming the dividing-lines for the said designs, substantially as set forth.

In testimony whereof we have signed our
35 names to this specification in the presence of two subscribing witnesses.

JAMES LAIRD.

WILLIAM MENDHAM.

Witnesses:

HENRY HOWSON,

WILLIAM D. CONNER.