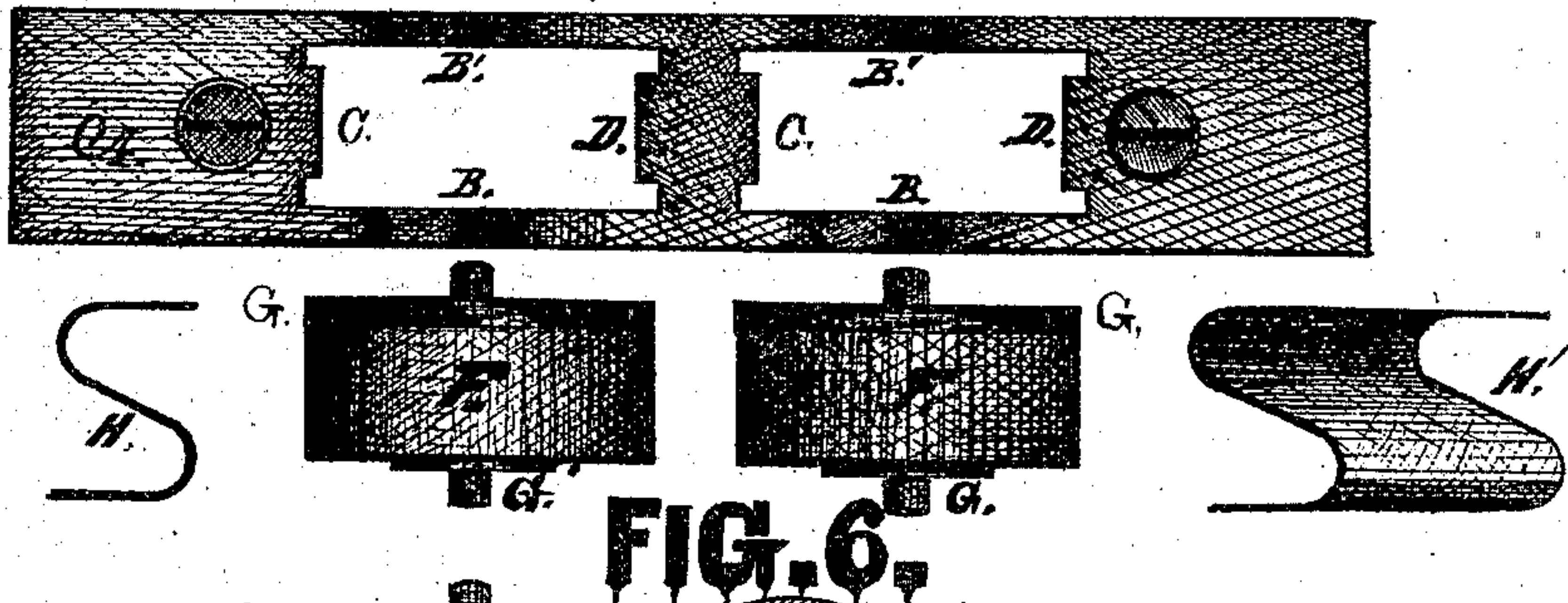
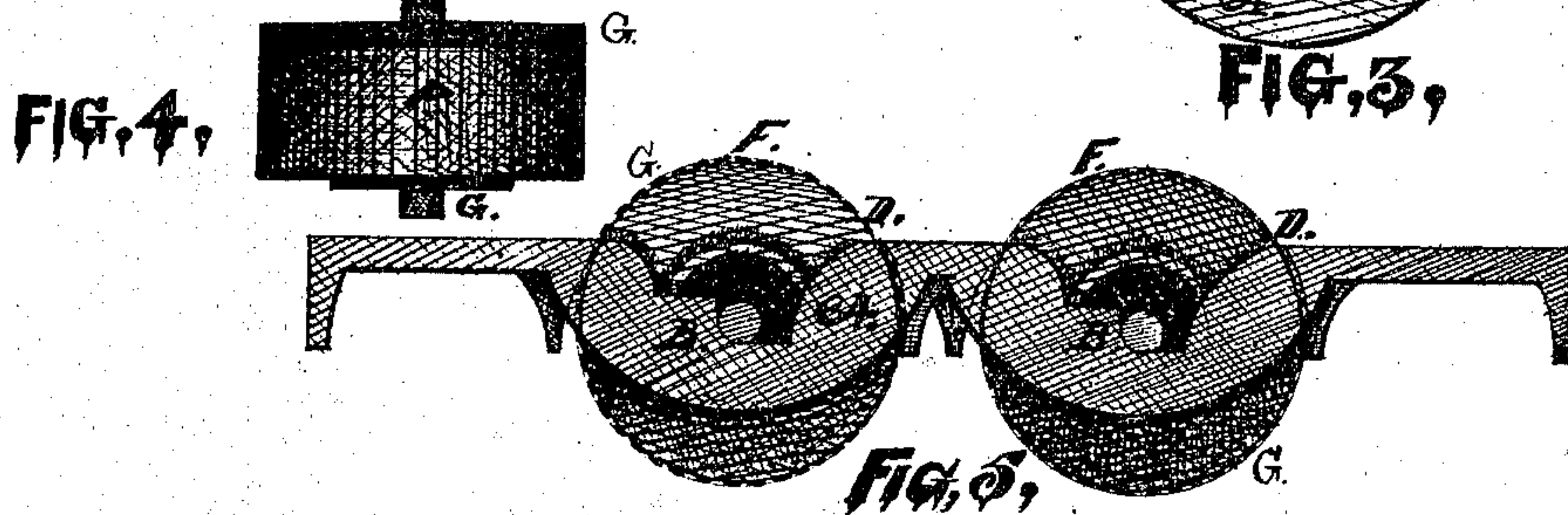
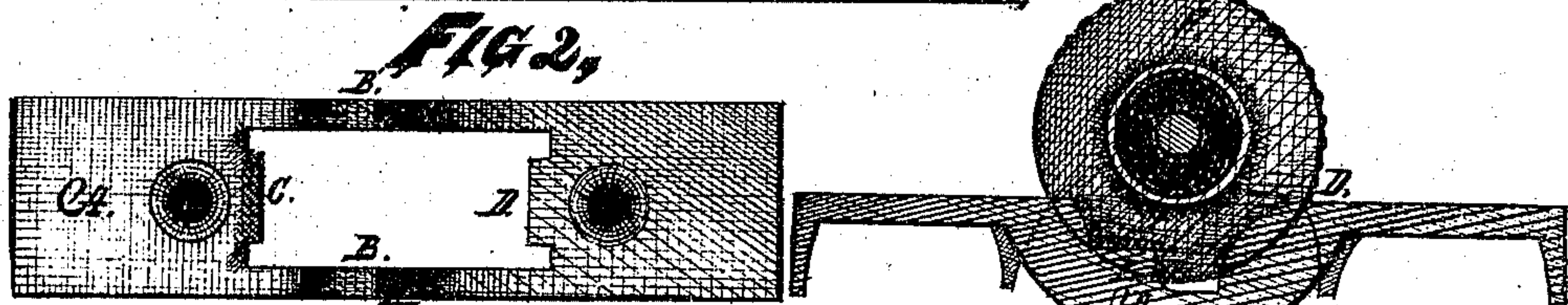
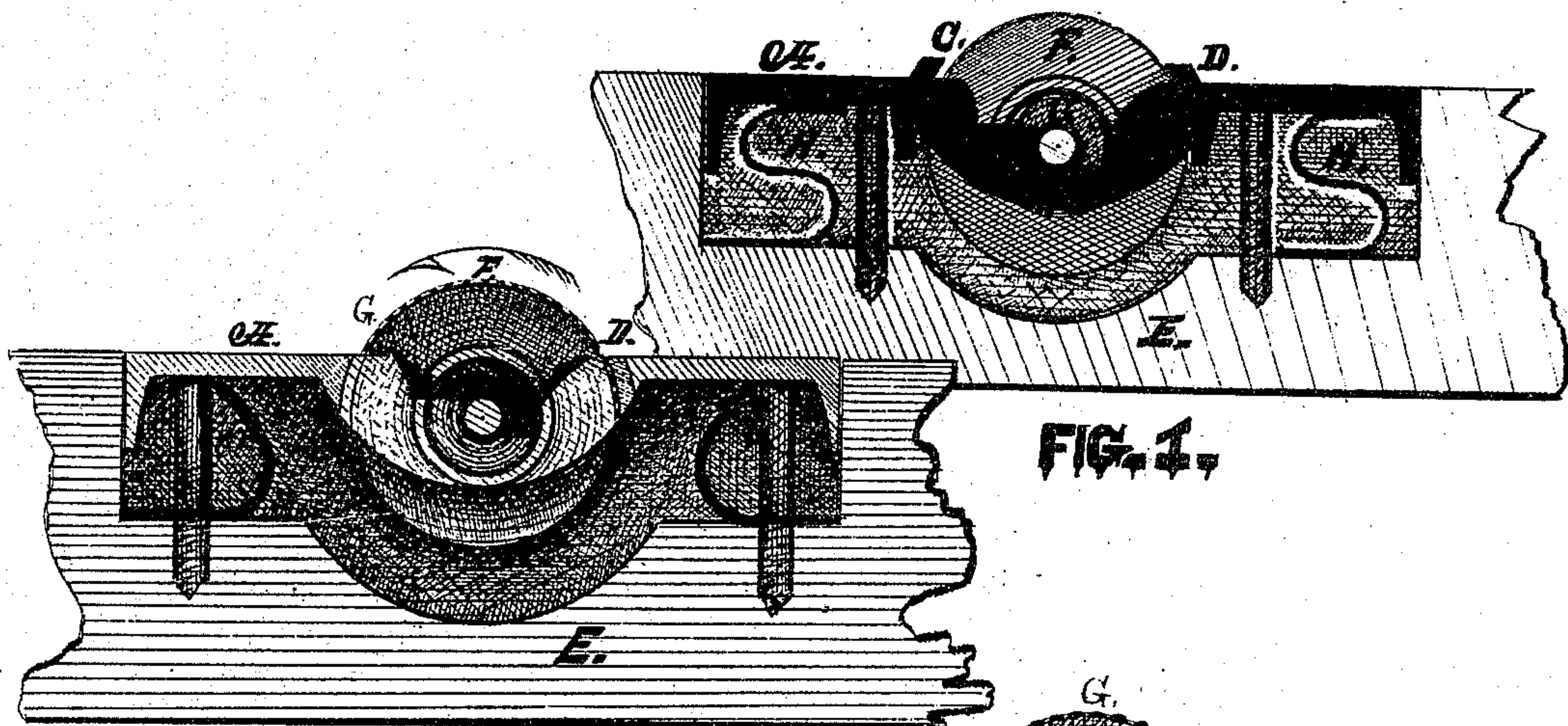


R. B. Hugunin,

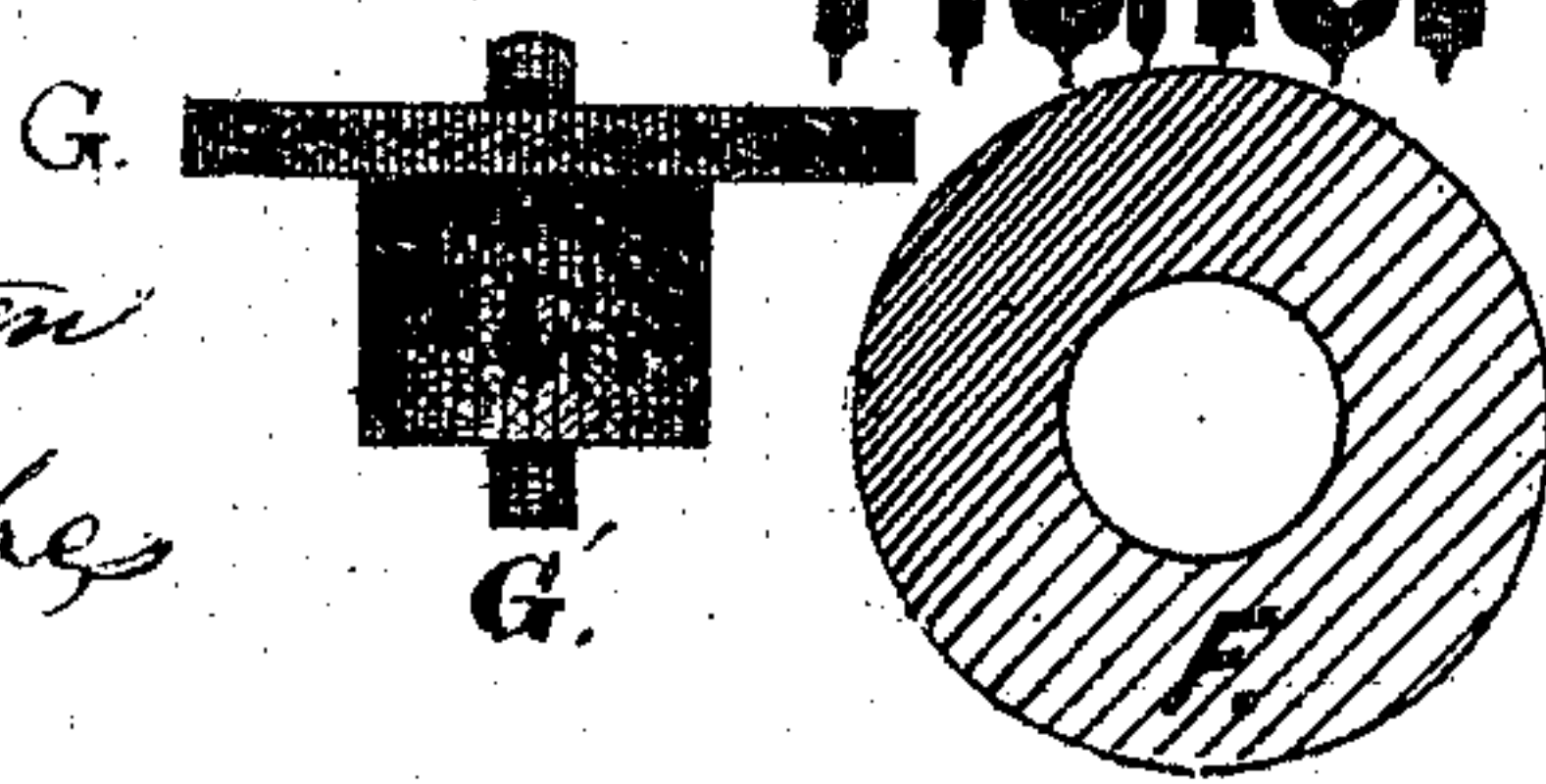
Sash Holder.

No. 100,486.

Patented Mar. 1. 1870.



Witnesses:
Jno. D. Patton
Alonzo Hughes



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United States Patent Office.

ROBERT B. HUGUNIN, OF CLEVELAND, OHIO.

Letters Patent No. 100,486, dated March 1, 1870.

IMPROVEMENT IN SASH-HOLDERS.

The Schedule referred to in these Letters Patent and making part of the same.

I, ROBERT B. HUGUNIN, of Cleveland, Ohio, have invented certain Improvements in the Construction of "Sash-Holders," of which the following is a specification.

Nature of the Invention.

First, the invention consists in constructing a plate with openings to receive a semi-elastic roller, of a less length than the diameter of the roller. Through this opening the roller is pressed, the space increasing in length inward, so that, when the roller reaches its working position, room occurs for its movements, as and for the purposes hereinafter set forth, the object being to hold the roller from falling out, &c.

Secondly, in combining with this plate the curved end corresponding with the curve of the roller, the object being to enable the elastic surface of the roller to touch this surface throughout at the same time, and receive from it the amount of friction required to hold the sash. The limited angle of this friction-surface with the line of pressure prevents the entire clamping of the roller, &c.

Thirdly, in the construction and use of a roller whose surface is composed of a combination of metal and rubber, or porcelain and rubber, &c. The rubber receives the friction from the plate, and, in combination with the metal surface of the roller, furnishes the friction on the casing, the object being to prevent the sliding of the rubber on the casing, and consequent destruction of its roundness and efficiency.

Description of Drawings, &c., Accompanying this Specification.

Figure 1, elevation of plate, and roller, and double-acting springs, all in position.

Figure 2, same view as fig. 1, omitting the projections on the top of the plate.

Figure 3, elevation of the plate, with the roller suspended, ready to be pressed into its position.

Figure 4, view of plate with roller removed.

Figure 5, view of a plate using two instead of one roller.

Figure 6, detailed drawings, showing in detail the features of my invention.

General Description.

A, roller-plate, with openings for rollers, of less length than the diameter of said rollers. Through these openings the rollers are pressed and held. By duplicating these openings any required number of rollers may be used in one plate.

B and B', journal-rests for holding the roller in its position. A substitute for these may be obtained by using instead the surface at the end, marked C, so

that it will touch the roller, and then slope rapidly away from it, &c., downward and outward. While this would afford some resistance in raising the sash, the angle of resistance would be so small that this would hardly be perceptible. By carrying the projections B and B' up to the top line of the plate, and placing the journals of the rollers against them, and pressing the rubber surface past the curved end in the opening at D, a result similar to compressing through a short opening in the plate would be obtained, but still by compression, &c.

D, curved surface-end of opening of plate A, against which the roller acts during the downward movement of the sash, and while the same is held supported, &c. The curve of this surface corresponds with the curved surface of the roller. This surface may extend above the plate or not.

E, section of the window holding the "sash-holder."

F, semi-elastic covering of roller used in combination with a metal surface, &c. This covering is vulcanized sufficiently hard to prevent being pressed out of round by the action of the springs, and also made white, to avoid discoloring the casing, when desired. It is made in the form of tubing, and cut to the lengths required, &c. Leather could be used for this purpose also.

G, metal or porcelain surface of the roller in combination with the rubber. This, when only one is used, as on the end or in the center, may be cast tight on to the body of the roller, as illustrated in fig. 6. When more than one, they may be in the form of collars or washers, &c. The surface of this surface is roughened in imitation of a milled surface, to enable it to hold on to the casing, and, in combination with the rubber surface, support the sash. The rubber surface of the roller receives its supporting-power from the curved surface of the plate, the metal portion moving through the plate freely by means of the groove or grooves on either side, &c., and the rubber and milled surface hold the sash in any position desired. The metal surface prevents the roller from sliding, compelling it to turn when it is desired to press the sash down.

G', body of the roller, over which the elastic covering is drawn. It may be grooved or roughened to prevent the rubber from turning, &c.

H and H', double-acting springs, constructed so as to elongate and spring both ways or in opposite directions. This form of spring reduces the leverage without reducing the springing surface, and requires much less space in the mortise to work in, and also possesses efficiency for the purposes intended. One of these is used between the fastening-screws and end of mortise, under each end of plate A, and remain in position

without fastenings, &c., keeping the roller in contact with the casing, and overcoming effectually the effects of shrinkage, &c.

J and J, common wood-screws, used for securing plate A in its proper place in the mortise.

Claims.

1. Roller-plate A, when constructed as described, in combination with a rubber or elastic roller, so fitting the same as to be admitted by compression.

2. The combined metal and elastic-surfaced roller herein described, the metal extending so as to catch upon the casing, and combined with groove for the metal to run in, and a friction-surface in plate A.

3. Combined with the above metal and elastic-surfaced roller, the curved friction-surface D in plate A.

R. B. HUGUNIN.

Witnesses:

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