

(No Model.)

M. F. HANLON.

ROLLER SKATE.

No. 296,833.

Patented Apr. 15, 1884.

Fig. 1.

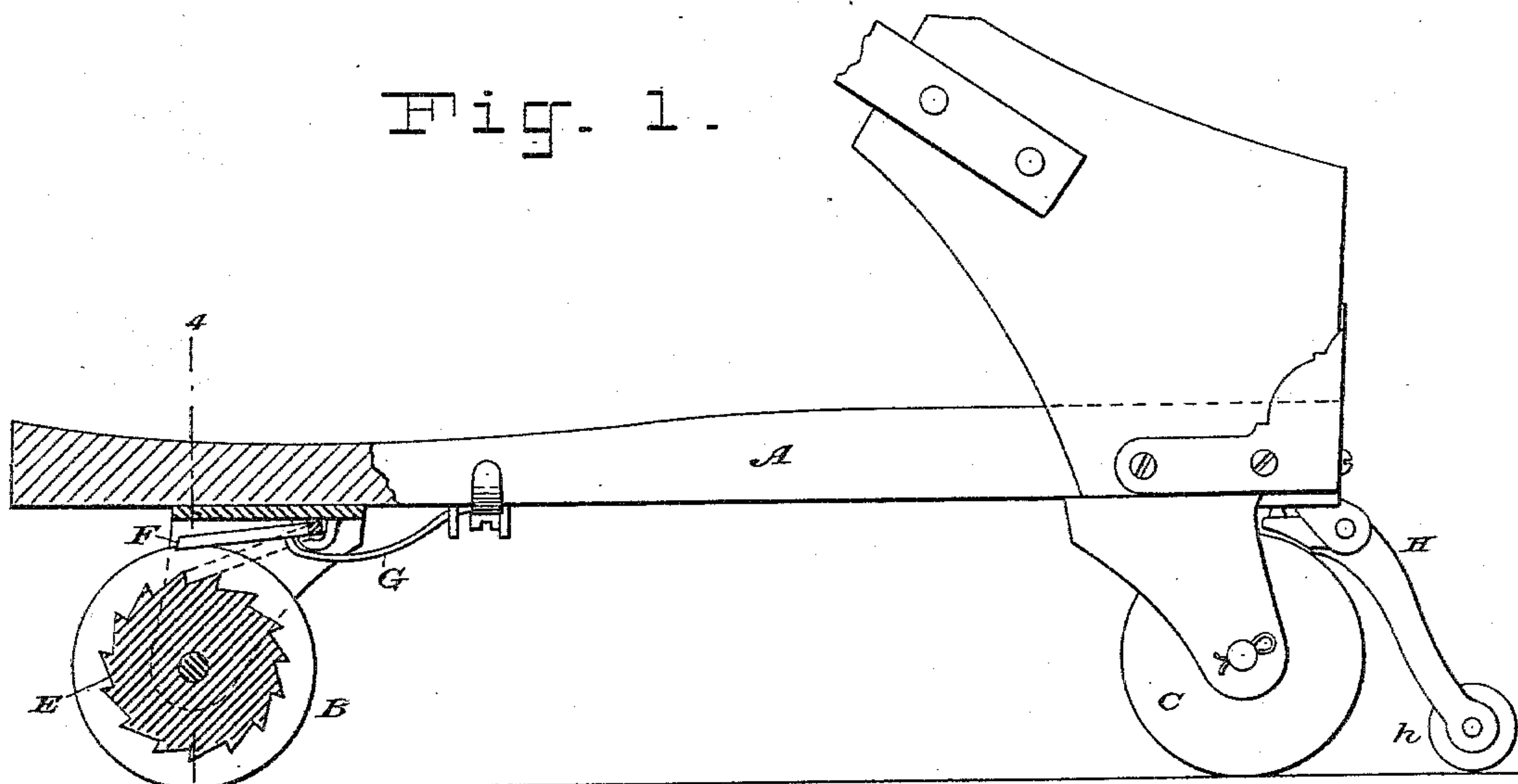


Fig. 2.

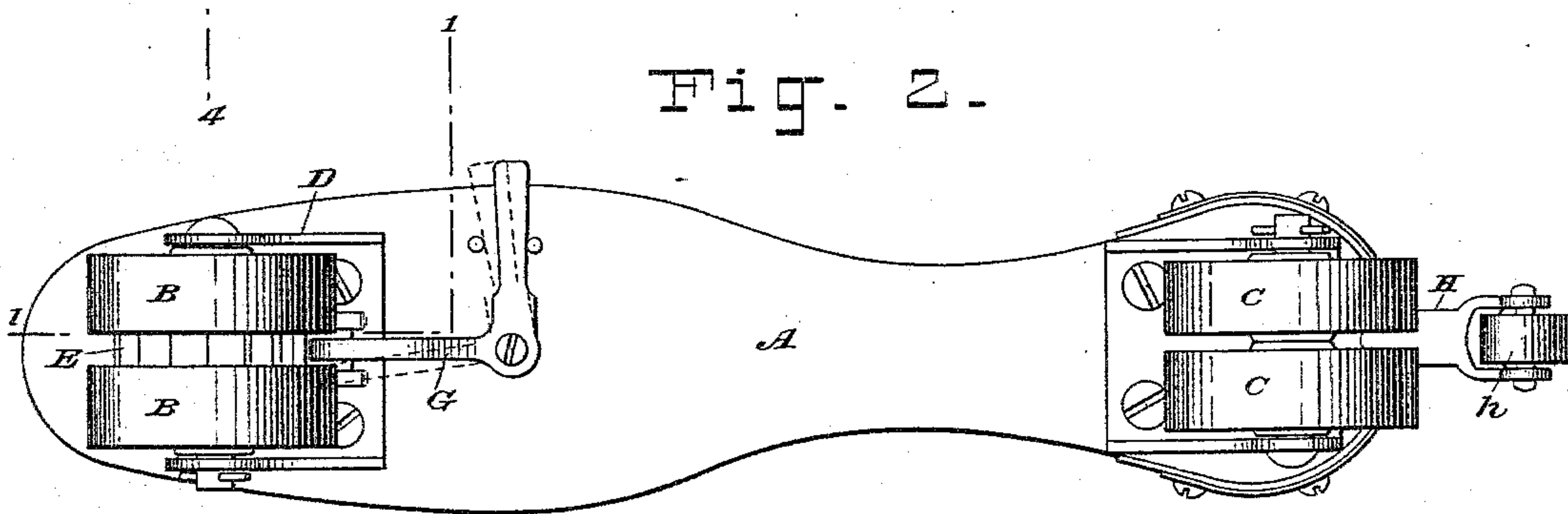


Fig. 3.

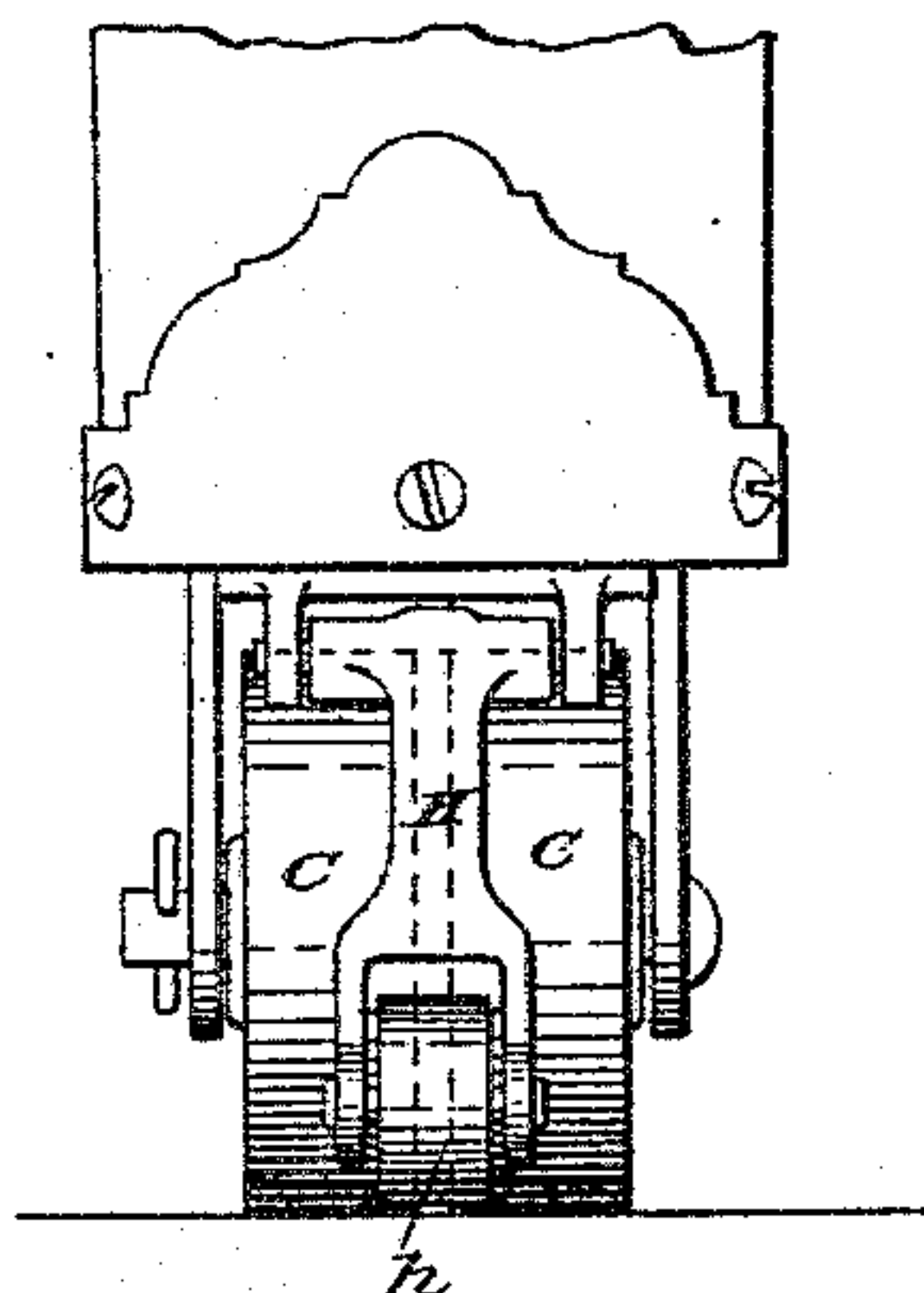


Fig. 4.

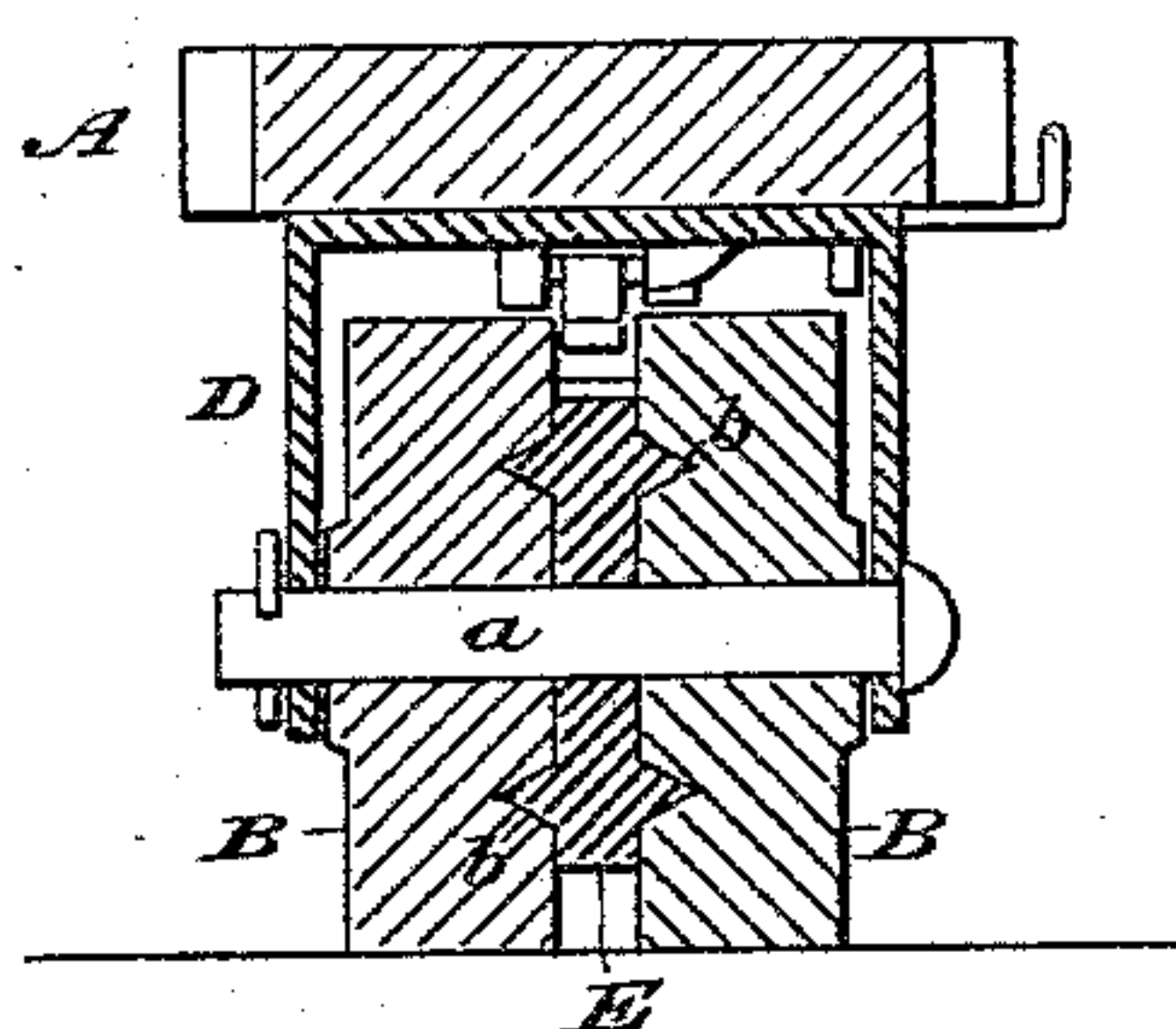


Fig. 5.

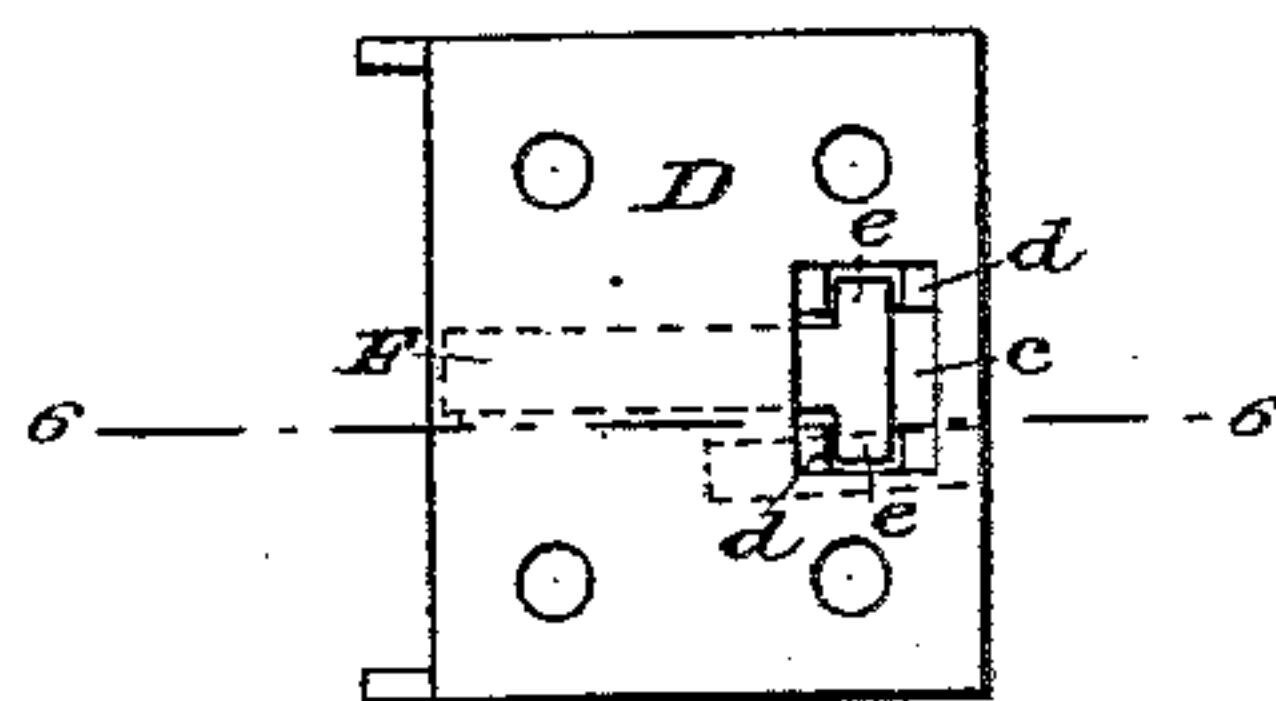
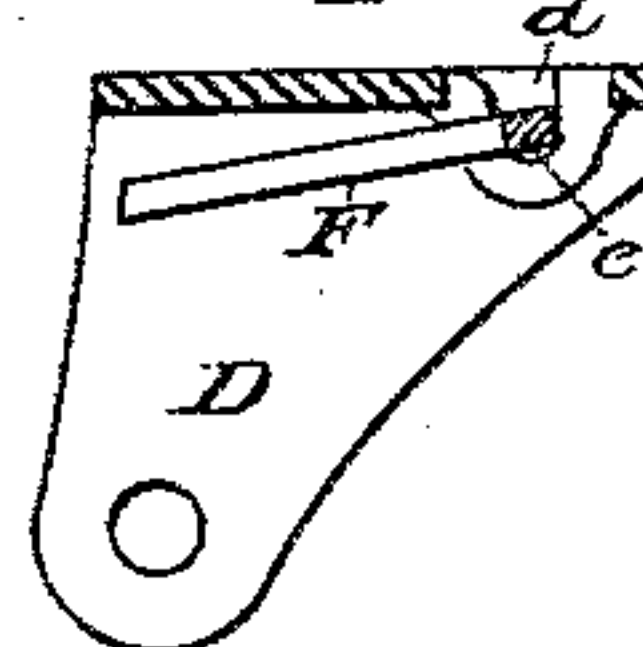


Fig. 6.



WITNESSES:

L. B. Bolton

Geo. Bainton

INVENTOR:

Michael F. Hanlon

By his Attorneys,

Burke, Fraser & Bennett

UNITED STATES PATENT OFFICE.

MICHAEL F. HANLON, OF BROOKLYN, NEW YORK.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 296,833, dated April 15, 1884.

Application filed January 19, 1884. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL F. HANLON, a citizen of the United States, residing at Brooklyn, in the State of New York, have invented certain Improvements in Roller-Skates, of which the following is a specification.

My invention relates to any of the well-known types of roller-skates, whether the rollers or wheels are arranged in pairs at toe and heel or in line; and it consists, first, in the application of a ratchet-wheel and pawl to the front roller or rollers of the skate, to prevent the backward rotation thereof, the pawl being hung beneath the foot-plate of the skate; second, in the particular construction and adaptation of the ratchet-wheel and pawl; and, third, in means for throwing the pawl out of gear with the ratchet, all as will be fully hereinafter set forth.

The accompanying drawings show my invention as applied to a skate having four rollers—two mounted side by side at the toe and two at the heel.

Figure 1 is a side elevation of the skate, partly in section, cut along the line 1 1 in Fig. 2. Fig. 2 is an inverted plan. Fig. 3 is a rear elevation. Fig. 4 is a vertical transverse section in the plane of the line 4 4 in Fig. 1. Fig. 5 is a plan of the bearing-bracket for the front rollers removed, and Fig. 6 is a section thereof cut along the line 6 6 in Fig. 5.

Let A designate the body or foot-plate of the skate, B B the front rollers, and C C the rear rollers. The rollers B B are both mounted on one axle, *a*, Fig. 4, which is held in a bearing-bracket, D. (Shown in Figs. 1, 2, and 5.)

Between the rollers B B is fixed a ratchet-wheel, E, which has spurs *b b*, which are pressed into the wood of the rollers. It may be united thus to both rollers, as shown, or only to one, as preferred.

The bearing-bracket D is formed with a hole, *c*, and two depressions, *d d*, in its base-plate, as best shown in Figs. 5 and 6, and to it is loosely pivoted a gravity-pawl, F, the pivoted end of which is formed with wings or ears *e e*, which enter the indentations *d d*. When the bearing-bracket D is screwed to the body A of the skate, the pawl is thus loosely pivoted beneath it. The end of the pawl drops against the ratchet-wheel E, and thus

prevents any backward rotation thereof. The skater is thus enabled to strike out with more freedom and certainty than heretofore, and it is no longer necessary to strike out laterally, as one may propel himself by pushing backwardly with one foot while skating on the other. The pawl in my invention is arranged directly beneath the foot-plate of the skate, and engages a ratchet attached to the front roller or rollers usually employed. As compared with those skates previously made wherein an extra propelling-roller is provided mounted on a bracket projecting forward from the toe of the skate, and provided with a gravity-pawl, my skate is a marked improvement, as no extra rollers are added. The usual front rollers are made to serve the purpose of a propelling-roller, and the skate is not rendered clumsy to use or awkward in appearance. When it is desired to skate backward or to do fancy skating, the pawl F should be disengaged. To enable this to be readily accomplished, I provide a lever, G, (shown best in Fig. 2,) which, when moved to the position shown, lifts the pawl, so that its free end is clear of the ratchet-wheel, as shown in Fig. 1. The lever G is an elbow-lever, and is made of elastic sheet metal, one arm acting on the pawl and the other arm extending to the side of the skate and there turned up to serve as a handle. When turned to the position shown in dotted lines in Fig. 2, its end passes beyond the pawl and the latter drops upon the ratchet-wheel again.

In order to enable the skater to stop himself in the same manner as in ice-skating—namely, by pressing upon the heel of the skate—I have provided the brake shown in Figs. 1, 2, and 3. It consists of a brake-lever, H, the upper arm of which forms a brake-shoe and the lower arm bears a roller, *h*, which in ordinary skating barely touches the floor, or is lifted slightly above the floor. When the skater throws his weight upon his heel, the pressure comes upon this roller and tilts the lever H, thus pressing its upper arm against the rollers C C. The upper arm of the lever is broad enough to press upon both rollers, and forms, in fact, a brake-shoe.

I claim as my invention—

1. In a roller-skate, the combination, with

the usual front roller or rollers, of a ratchet-wheel fixed thereto and a gravity-pawl loosely pivoted beneath the foot-plate, with its free end adapted to engage said ratchet, and there-
5 by prevent a backward rotation of the roller, substantially as set forth.

2. In a roller-skate, the combination, with the front rollers, B B, of ratchet-wheel E, embraced between them, and having spurs *b b*,
10 which penetrate them, and with pawl F, substantially as set forth.

3. In a roller-skate, the combination of bearing-bracket D, having holes *c* and indentations *d d*, with pawl F, having ears *e e*, and with

ratchet-wheel E and rollers B B, substantially
as set forth. 15

4. In a roller-skate, the combination, with ratchet-wheel E and pawl F, of lever G, adapted to disengage the pawl from the ratchet,
substantially as set forth. 20

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

MICHAEL F. HANLON.

Witnesses:

AUTHUR C. FRASER,
HENRY CONNETT.