

No. 755,656.

PATENTED MAR. 29, 1904.

M. D. HANLON.
RAILWAY SEMAPHORE SIGNAL.

APPLICATION FILED APR. 4, 1903.

NO MODEL.

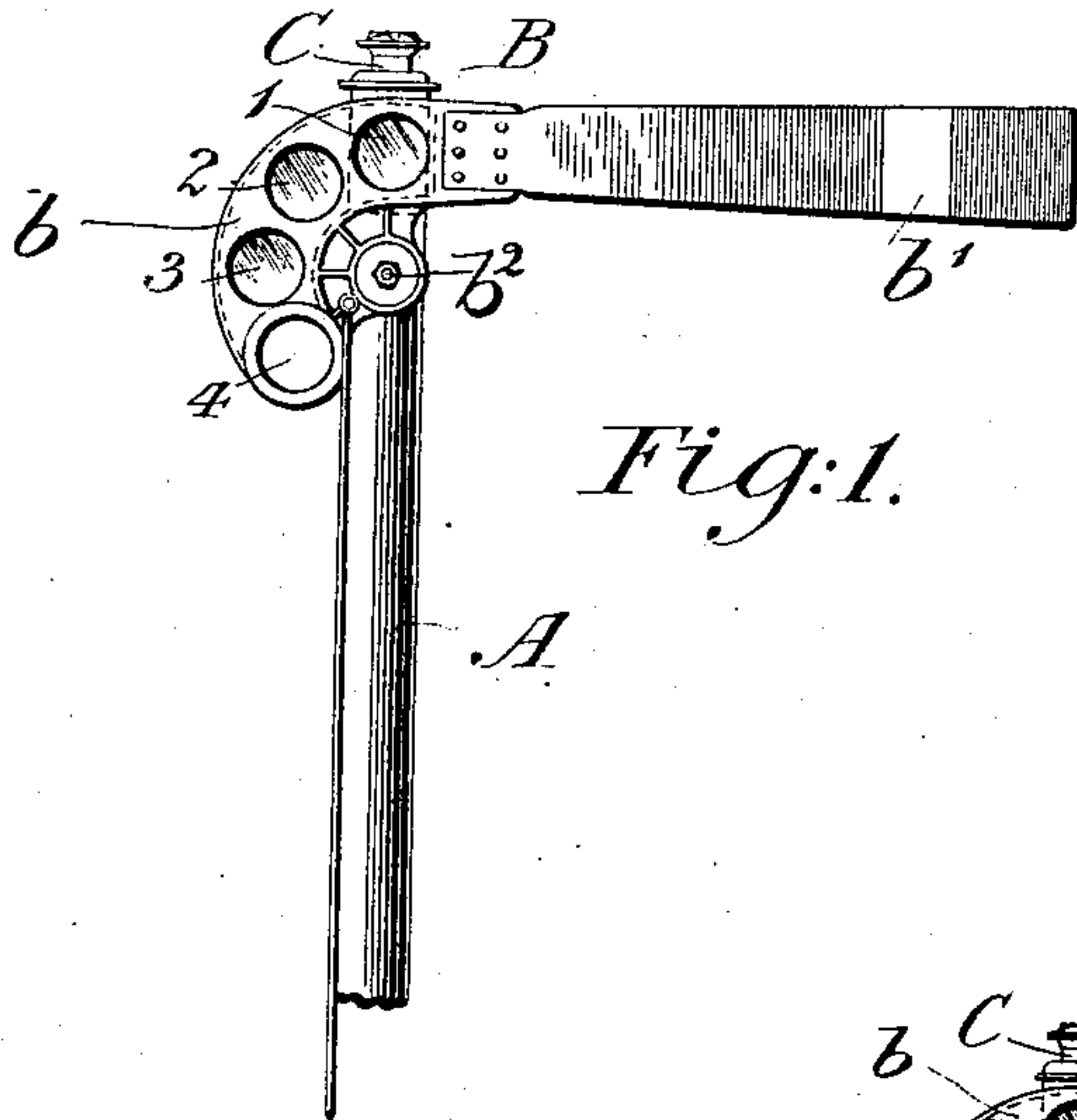


Fig:1.

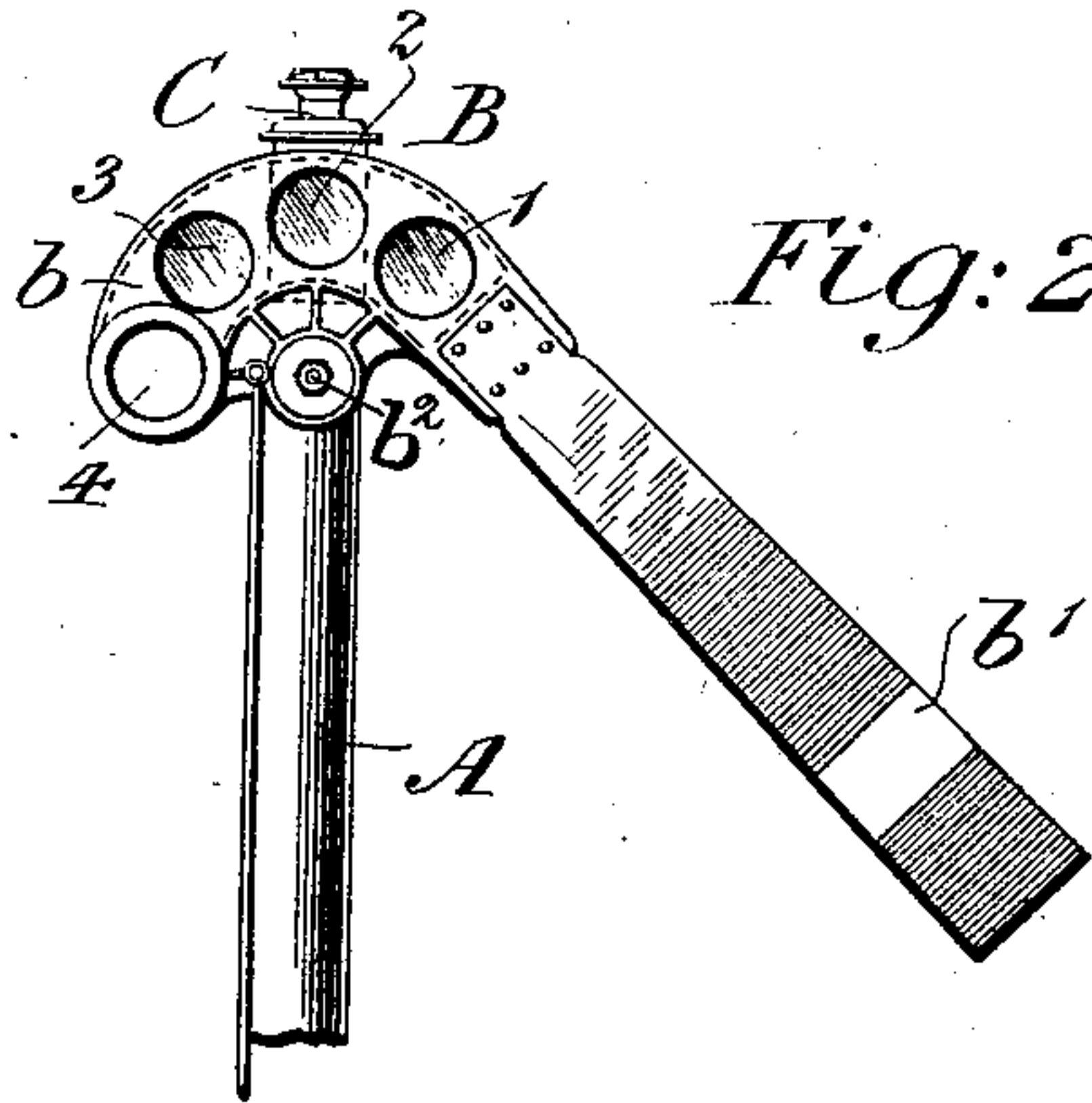


Fig:2.

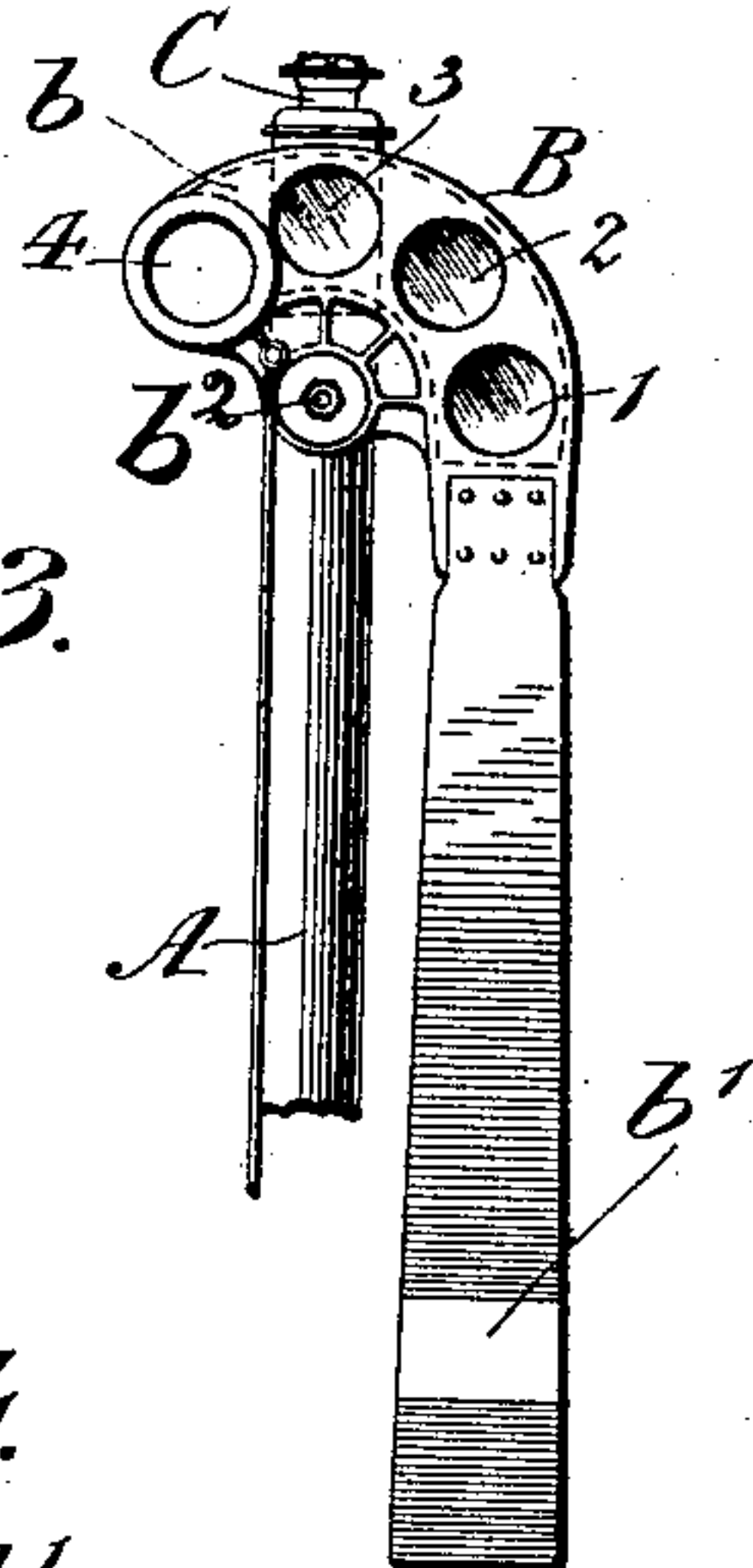


Fig:3.

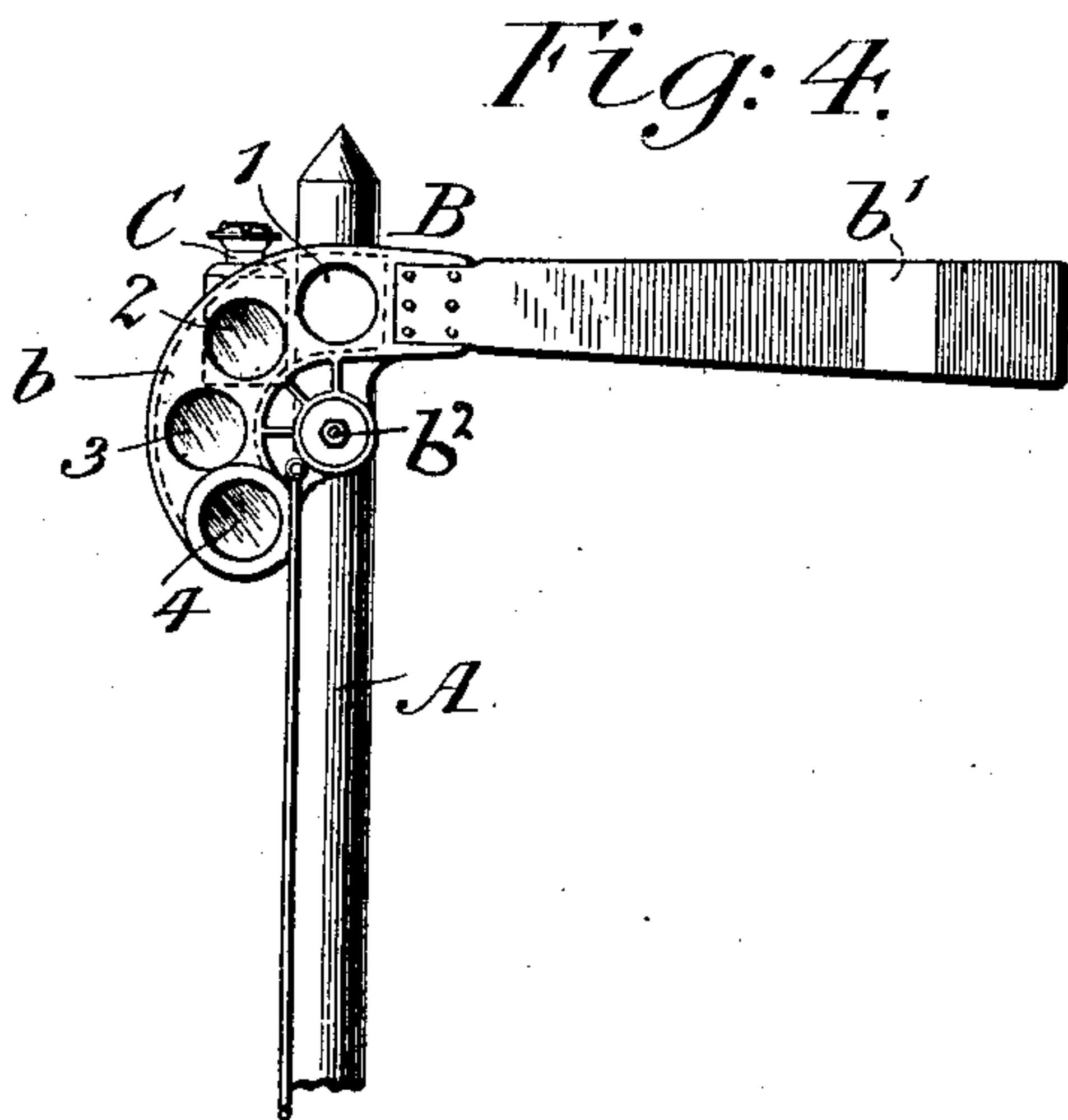


Fig:4.

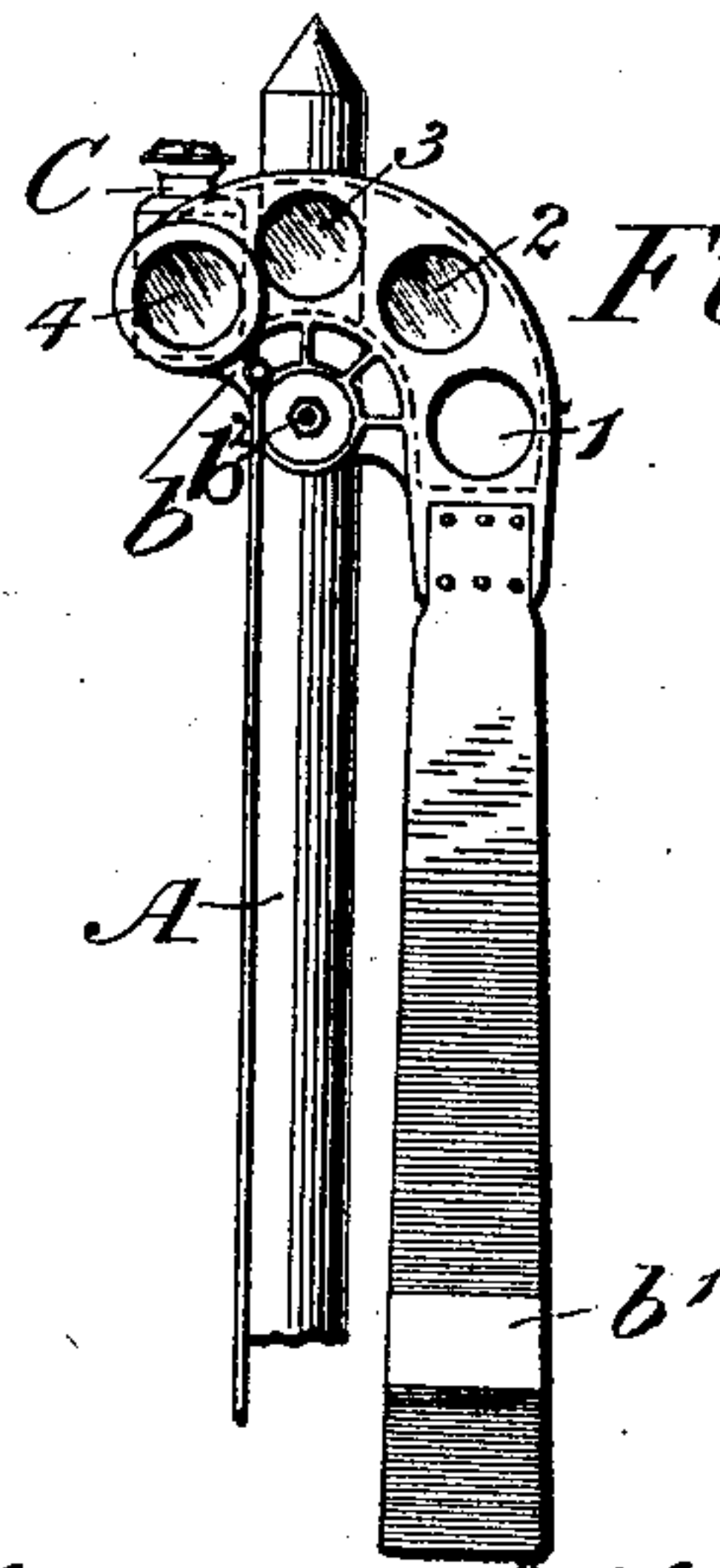


Fig:5.

Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

MARQUIS D. HANLON, OF WILKINSBURG, PENNSYLVANIA, ASSIGNOR TO
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RAILWAY SEMAPHORE-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 755,656, dated March 29, 1904.

Application filed April 4, 1903. Serial No. 151,035. (No model.)

To all whom it may concern:

Be it known that I, MARQUIS D. HANLON, a citizen of the United States, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Railway Semaphore-Signals, of which the following is a specification.

My invention relates to semaphore-signals for railways, and particularly to the casting comprised in that type of railway-signal.

The object of my invention is to provide a casting, generally termed a "spectacle," which is adapted for many uses in connection with railway semaphore-signals—that is to say, a railway- semaphore having a casting embodying my invention is capable of a universal use for all ninety or forty-five degree movements, inasmuch as it is equally applicable to either two or three position signals having a lamp located on the top or at the side of the support or post.

I will describe a railway semaphore-signal embodying my invention and then point out the novel features thereof in the claims.

In the accompanying drawings, Figure 1 is a view in elevation of a railway semaphore-signal embodying my invention used as a three-position signal with the lamp placed on the top of the support. Figs. 2 and 3 are views similar to Fig. 1, showing the same use of the semaphore-signal, but in different positions. Fig. 4 is a view in elevation of a railway semaphore-signal embodying my invention used as a two-position signal with the lamp placed at the side of the support. Fig. 5 is a view similar to Fig. 4, showing the same use of the semaphore-signal, but in a different position.

Similar characters of reference designate corresponding parts in all of the figures.

Referring now to the drawings, A designates a suitable support or post, and B a semaphore-signal. The semaphore-signal comprises a metal casting b and a blade b' , which is suitably fastened to the casting. The semaphore-signal is pivotally mounted on the support in any desired manner through its casting by

means of a stub or other shaft b^2 . The casting, sometimes called a "spectacle," is made heavier in its part farthest away from its part to which the blade is secured in order that it will act as a counterweight for the blade. The semaphore-signal is moved on its pivot in one direction through the medium of an up-and-down rod, which is connected at one end to the casting and at its other end to the mechanism employed for moving the semaphore-signal, and in the opposite direction by gravity acting on the casting. In some instances the semaphore-signal may be moved in both directions through the medium of the up-and-down rod and in other instances in one direction entirely through the up-and-down rod and only partially in the opposite direction. The casting is shown as having four openings concentrically arranged with reference to the pivotal point b^2 and evenly disposed with relation to each other. There may be more than four openings, but no less than four. In the various uses of the semaphore-signal all or less than all of the openings may be provided with a transparent medium—as, for example, glass or lenses—and that opening or openings which are not used may be provided with an opaque covering—as, for example, metal disks.

In Figs. 1, 2, and 3 the semaphore-signal is used for three positions of indication—viz., "danger," Fig. 1, "caution," Fig. 2, and "clear" or "safety," Fig. 3. The openings 1, 2, and 3 in this use of the semaphore-signal contain different-colored lenses or glass—as, for example, red, green, and white—and the lamp C is placed on top of the support. Other colored lenses or glass may be employed. The opening 4 may be covered by a metal disk. With the lamp arranged on top of the support precisely the same form of semaphore-signal may be used on the opposite side of the support and on the same shaft. With the two semaphore-signals thus arranged they may be used as "train-order" signals or "station-block" signals. The semaphore-signals may also be used to give two or three positions of indication. In Figs. 4 and 5 the semaphore-

signal is used to give two positions of indication—viz., “danger,” Fig. 4, and “clear” or “safety,” Fig. 5. In this use the lamp C is placed at the side of the support. Three
 5 openings (2, 3, and 4) are used, but only two different colors of lenses or glass need be employed. For example, openings 2 and 3 are provided with lenses or glass of the same color and the opening 4 with a lens or glass of a dif-
 10 ferent color. With this arrangement of lenses or glass a “continuous-light” effect is obtained—that is to say, the danger light or color will be displayed for nearly the whole distance of travel of the semaphore-signal
 15 blade to the clear or safety position. If desired, the semaphore-signal with the lamp at the side of the post may be employed to give three positions of indication, in which use three different colors of lenses or glass should
 20 be used in the openings 2, 3, and 4. It will be seen, therefore, that by the concentric arrangement of the four openings in the body of the casting, as well as their equal relative spacing, the casting with a blade is capable of
 25 a wide usage for railway signaling purposes. What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

1. A casting for a semaphore-signal heavier

in one part than in another having a pivotal 30 point and four openings concentrically arranged with reference to the pivotal point and relatively equally disposed in their concentric arrangement.

2. The combination in a semaphore-signal 35 of a casting having a pivotal point and four openings concentrically arranged with reference to the pivotal point and relatively equally disposed in their concentric arrangement and a blade fastened to said casting and extending 40 outwardly and tangentially therefrom.

3. The combination in a semaphore-signal, of a casting heavier in one part than another 45 having a pivotal point and four openings concentrically arranged with reference to the pivotal point and relatively equally disposed in their concentric arrangement, and a blade fastened to said casting at its lighter weighted 50 part and extending outwardly and tangentially therefrom.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MARQUIS D. HANLON.

Witnesses:

W. L. McDANIEL,
 GEO. E. CRUSE.