

E. J. BROOKS.

SEAL.

(Application filed Apr. 18, 1901.)

(No Model.)

Fig. 1.

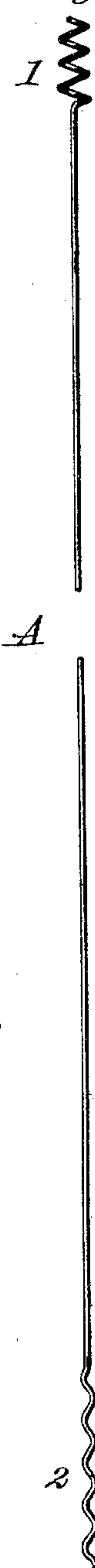


Fig. 2.

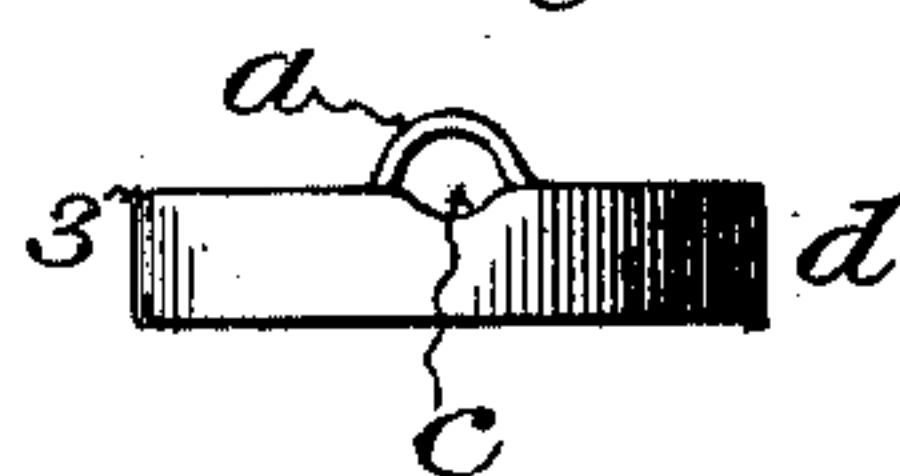
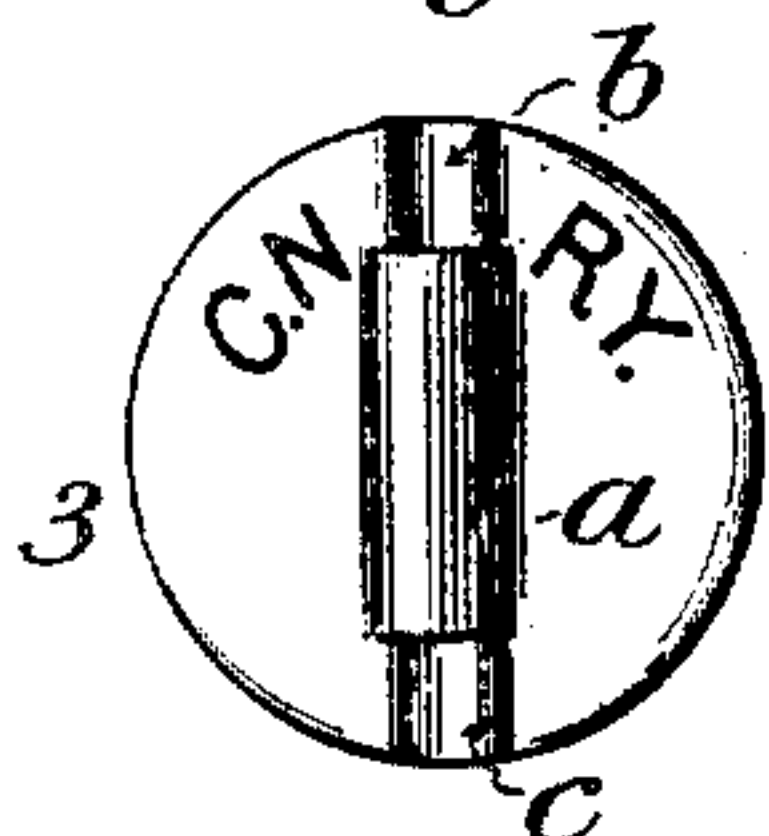


Fig. 3.

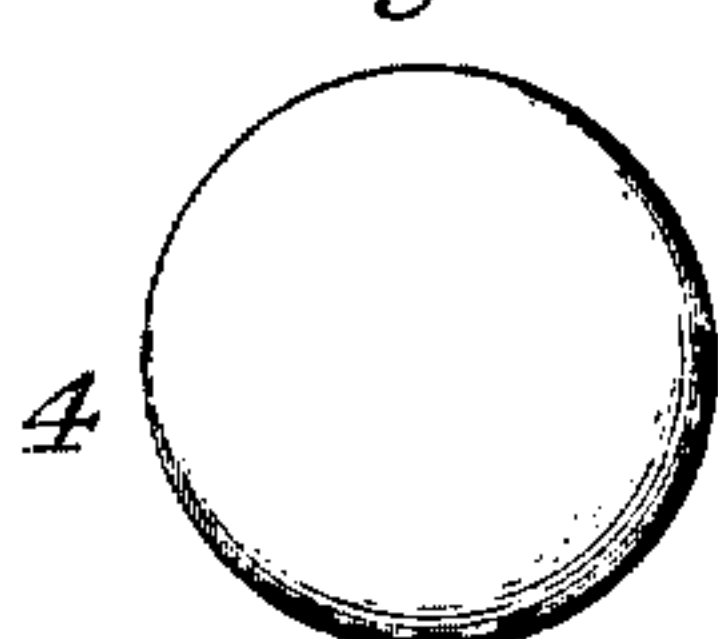


Fig. 10.

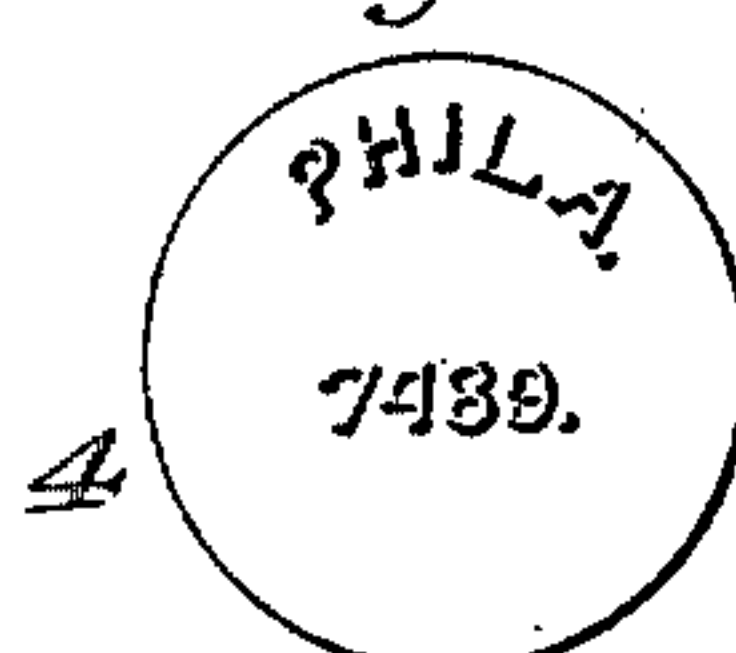


Fig. 9.

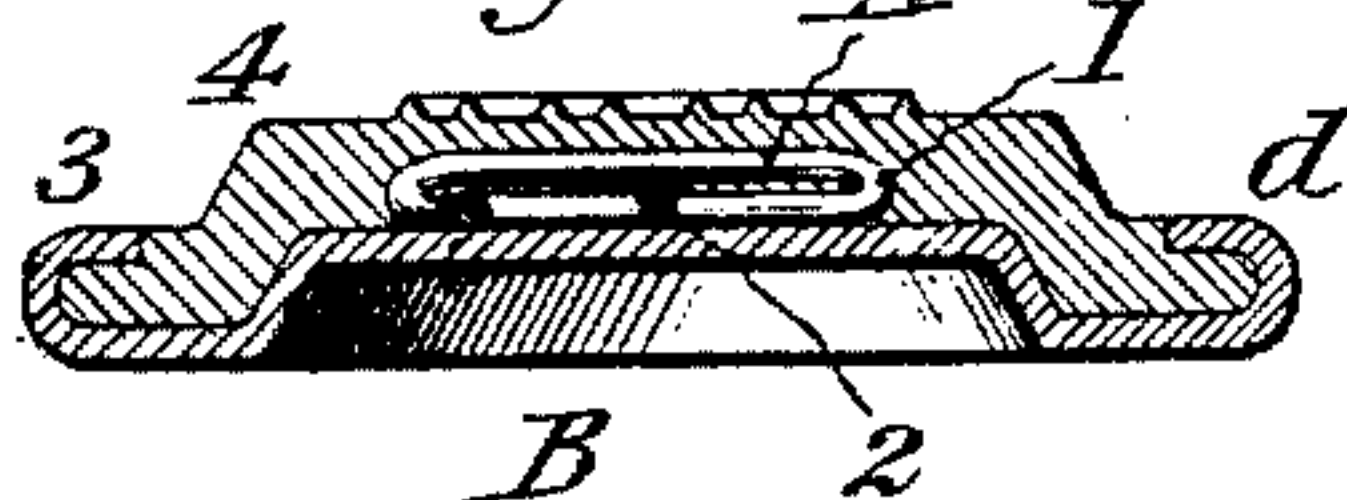


Fig. 4.

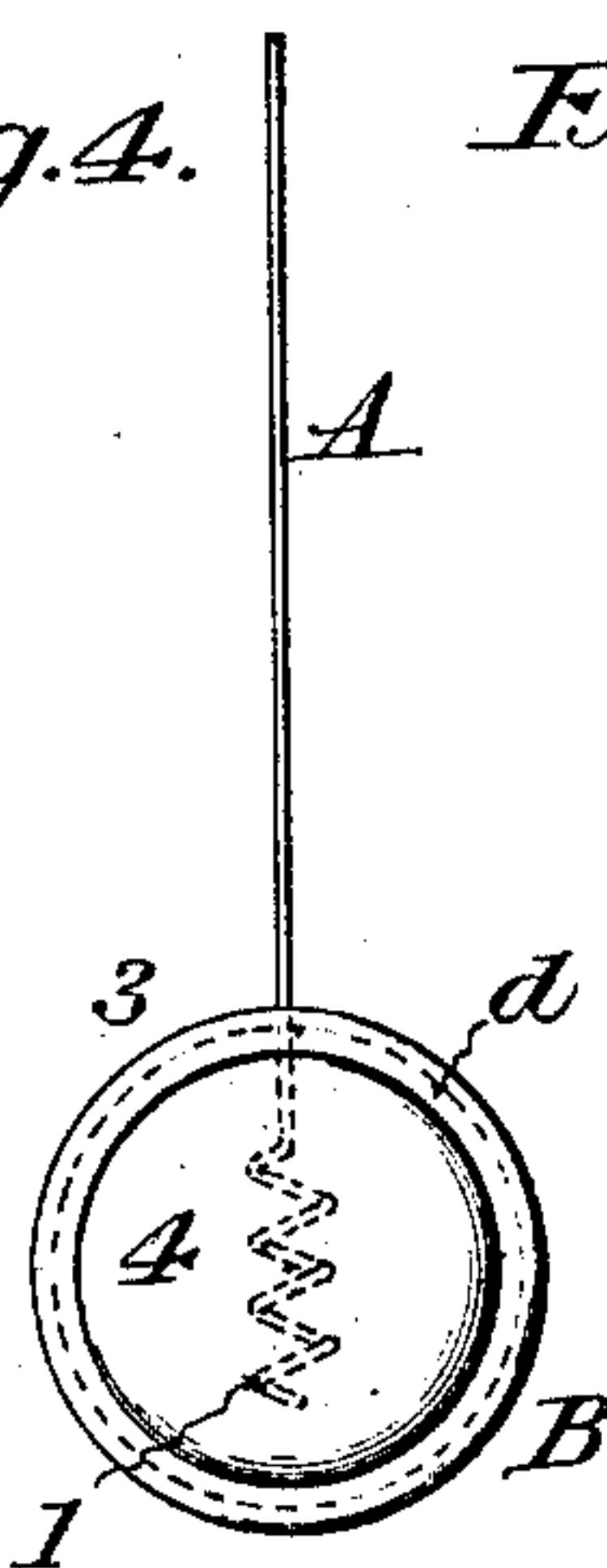


Fig. 5.

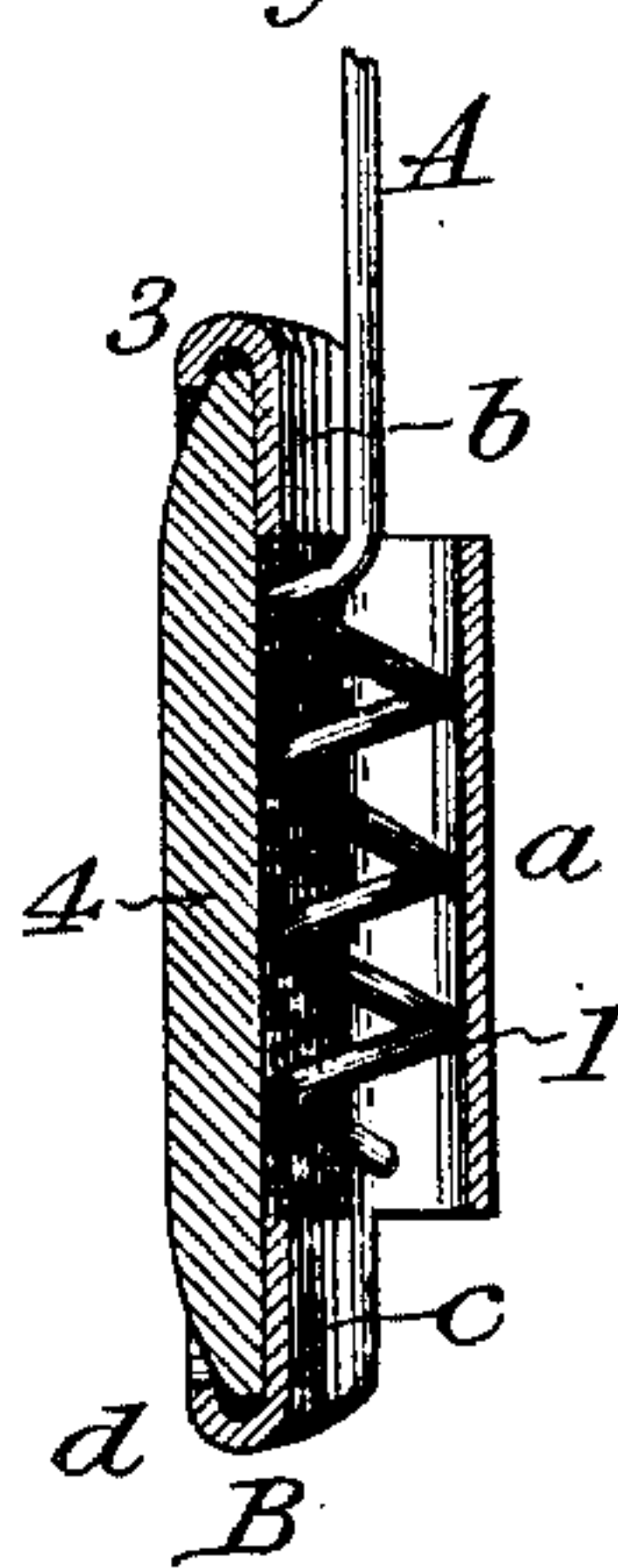


Fig. 8.

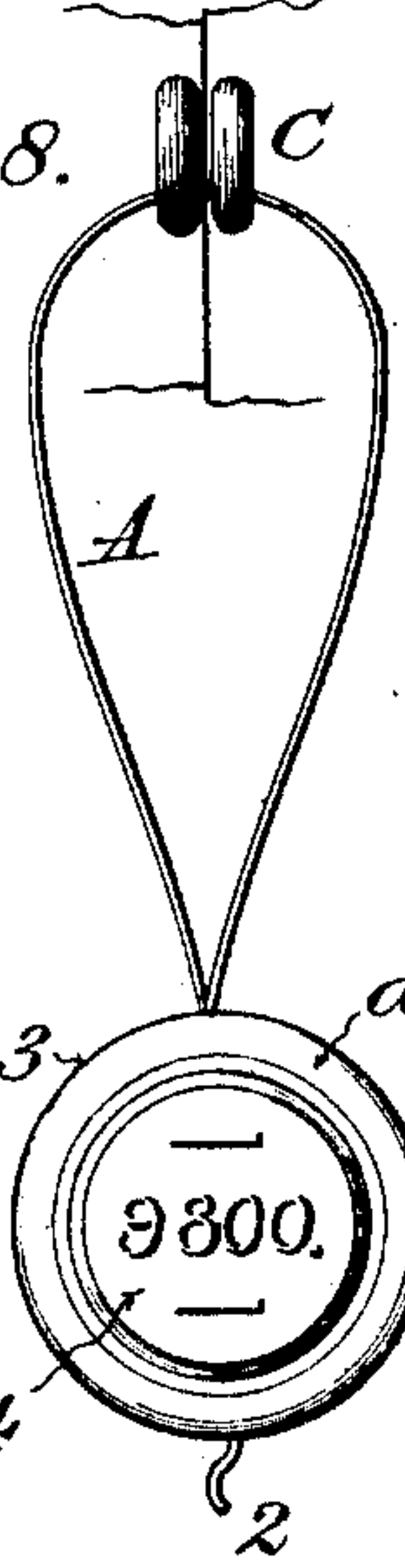


Fig. 6.

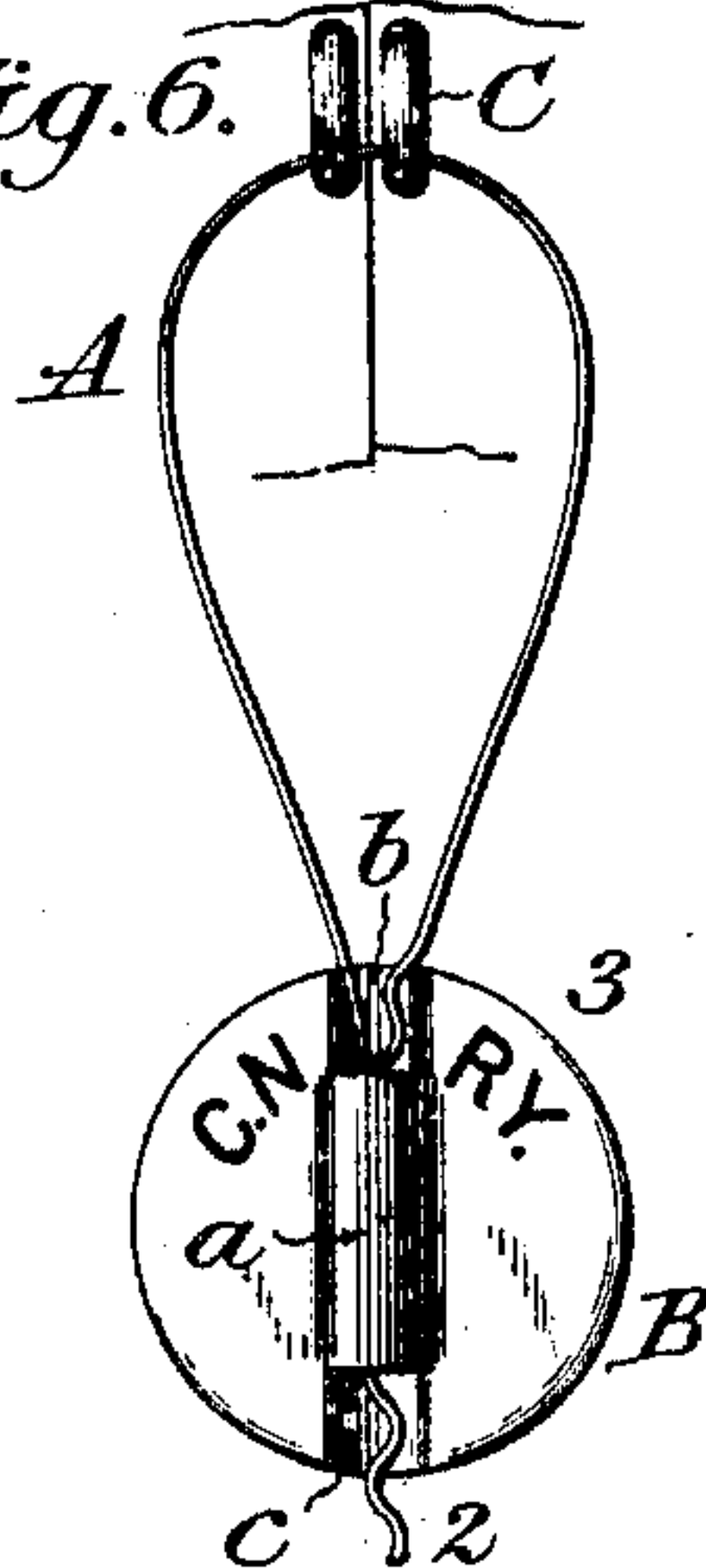


Fig. 7.

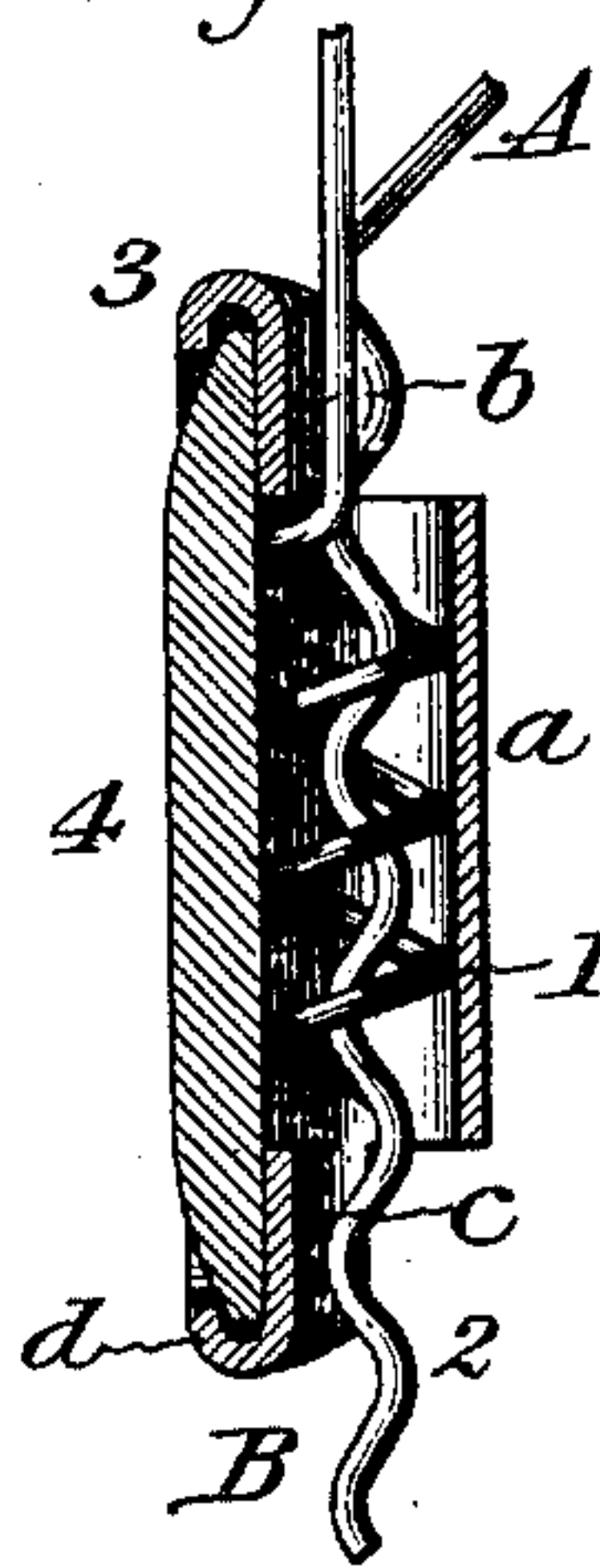


Fig. 11.

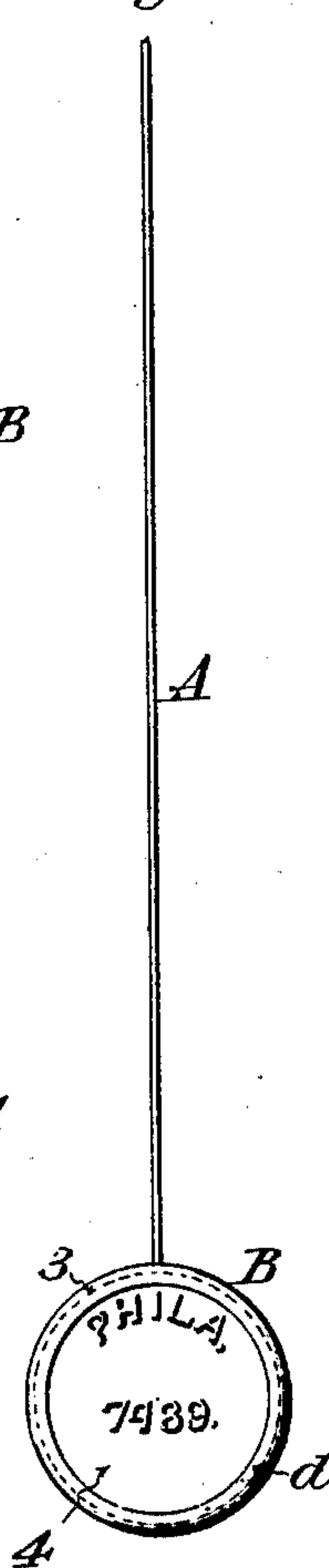
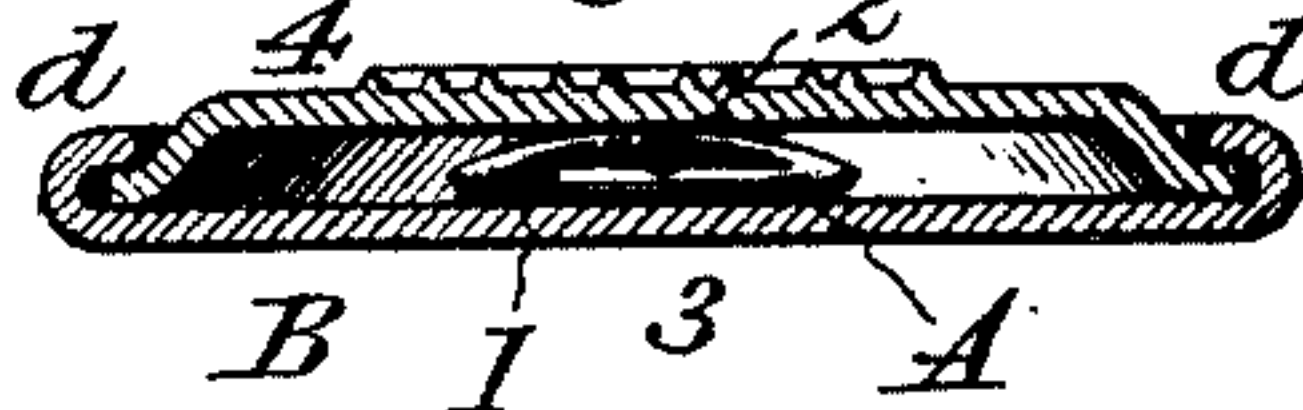


Fig. 12.



Witnesses
Louis E. Langille.
E. Thos. Loftus.

Inventor
Edward J. Brooks
per Wm. L. Ewing,
Attorney.

UNITED STATES PATENT OFFICE.

EDWARD J. BROOKS, OF EAST ORANGE, NEW JERSEY.

SEAL.

SPECIFICATION forming part of Letters Patent No. 679,411, dated July 30, 1901.

Application filed April 18, 1901. Serial No. 56,355. (No model.)

To all whom it may concern:

Be it known that I, EDWARD J. BROOKS, a citizen of the United States of America, and a resident of East Orange, in the State of New Jersey, have invented a new and useful Improvement in Seals, of which the following is a specification.

This invention relates to press-fastened seals for securing the doors of railway freight-cars and for like uses and to that class of such seals in which the seal-disk is wholly or in part of sheet metal.

The subject-matter of the present invention is an improved seal of that general description in which a leading feature is a flexible shackle of single wire having its respective ends cylindrically coiled and crimped and adapted to have its crimped end threaded into and securely fastened lengthwise within the coil at the other end of the shackle.

The invention consists in the improved seal as a new article of manufacture and in certain novel combinations of parts therein, as hereinafter set forth and claimed.

A sheet of drawings accompanies this specification as part thereof.

Figure 1 is an elevation of the shackle of the improved seal. Fig. 2 represents back and edge views of the main seal part. Fig. 3 represents face and edge views of a supplemental seal part of lead. Fig. 4 represents a face view of the seal formed by uniting said parts as it leaves the factory, and Fig. 5 a magnified longitudinal section through Fig. 4. Fig. 6 represents a back view of the same seal ready for the seal-press, and Fig. 7 a magnified longitudinal section through Fig. 6. Fig. 8 represents a face view of the same seal pressed, and Fig. 9 a magnified cross-section through Fig. 8. Fig. 10 represents face and edge views of a supplemental seal part of sheet metal for alternative use. Fig. 11 represents a face view of the seal so modified, and Fig. 12 represents a magnified cross-section through the modified seal.

Like letters and numbers refer to like parts in all the figures.

The improved seal in either of its forms comprises a flexible shackle A of single wire, preferably and conveniently of medium weight, having its respective ends 1 and 2

cylindrically coiled and crimped, as represented by Fig. 1.

The seal-disk B of the improved seal is composed of a cup-shaped main seal part 3, Fig. 2, of sheet metal, and a supplemental seal part 4, either of lead, as represented by Fig. 3, or of sheet metal, as represented by Fig. 10. In either case the parts of the improved seal are permanently united with each other at the factory, as represented by Figs. 4, 5, and 11, and threaded preparatory to the application of the seal-press, as represented by Figs. 6 and 7, and the seal is press-fastened, as represented by Figs. 8, 9, and 12, in one and the same way. The main seal part 3 is constructed with a raised tunnel *a* on its back and with depressions *b* and *c* in line therewith, leading to and from its open ends. The edge walls of said main seal part are formed by an imperforate marginal flange *d*, leaving its face originally open, with the interior of the tunnel *a* exposed. The supplemental part 4, whether of lead or sheet metal, is simply a flat or substantially flat disk adapted to fit within the flange *d* of the main part 3. The crimped end 2 of the shackle A is passed from the open face of the part 3 through one of the open ends of its tunnel *a*, and the coil 1 is then drawn into the interior of the tunnel. The supplemental part 4 is then inserted and the flange *d* turned down to secure it in place, as in Figs. 4 and 5 or Fig. 11. This operation permanently unites the parts of the seal and completes its preparation at the factory.

In use the crimped end 2 of the shackle A is threaded through a pair of car-door staples C or the like and then through the coil within the tunnel *a* of the seal-disk B, as in Figs. 6 and 7, being assisted in the latter operation by the depressions *b* and *c*. The coils and crimps immediately interlock to a sufficient extent to prevent the accidental escape of the crimped end before the seal-press is applied. The seal is pressed between suitable dies, and at this operation the tunnel *a* of the seal-disk B and the coil 1 within it are flattened and the respective ends of the shackle A are securely interlocked with each other, as represented in Figs. 9 and 12.

The main seal part 3 is preferably and con-

veniently provided at the original stamping operation with permanent lettering or distinguishing marks—as, for example, the initials of a railway, represented by “C. N. R. Y.” in Figs. 2 and 6. The supplemental seal part 4, if of lead, is provided in the seal-press at the fastening operation with suitable supplemental marks—as, for example, a station name or number or a serial number, as represented by “9800” in Fig. 8. If of sheet metal, the supplemental seal part 4 is conveniently provided at the factory with embossed or printed lettering or marks of any description, represented by “Phila. 7489” in Figs. 10 and 11.

If one of my ratchet-seal presses is employed, as set forth in my specification forming part of United States Patent No. 660,837, dated October 30, 1900, and previous patents therein referred to, either or both parts of the seal-disk B, constructed wholly of sheet metal, may be made without lettering or other distinguishing marks at the factory and provided with the same in the seal-press. The seal-disk may be of other shapes in outline, and other like modifications will suggest themselves to those skilled in the art.

Having thus described said improvement, I claim as my invention and desire to patent under this specification—

1. An improved seal, adapted to be press-fastened, comprising a flexible shackle of wire, cylindrically coiled and crimped at its respective ends, and a seal-disk composed of a main part having an open-ended tunnel

raised on its back and a marginal flange on its face, and a supplemental part in the shape of a flat disk attached by said flange, said coiled end of the shackle being held within said tunnel and adapted to receive the crimped end lengthwise, and to retain the same preparatory to the application of the seal-press.

2. The combination, in a seal adapted to be press-fastened, of a flexible shackle cylindrically coiled at one end and having its other end adapted to be threaded lengthwise into such coil, and a seal-disk composed of two substantially flat parts, united by a circumferential flange on one of them, and having an open-ended tunnel, lengthwise within which said coil is secured, with the ends of the coil and the tunnel in direct communication with each other.

3. The combination, in a seal adapted to be press-fastened, of a flexible shackle cylindrically coiled at one end and having its other end adapted to be threaded lengthwise into such coil, and a seal-disk composed of two parts united by a circumferential flange on one of them, and having an open-ended tunnel within which said coil is secured by uniting said parts and depressions in line with said tunnel leading to and from its respective ends, substantially as hereinbefore specified.

EDWARD J. BROOKS.

Witnesses:

THOMAS TIERNEY,
F. W. LIVESEY.