

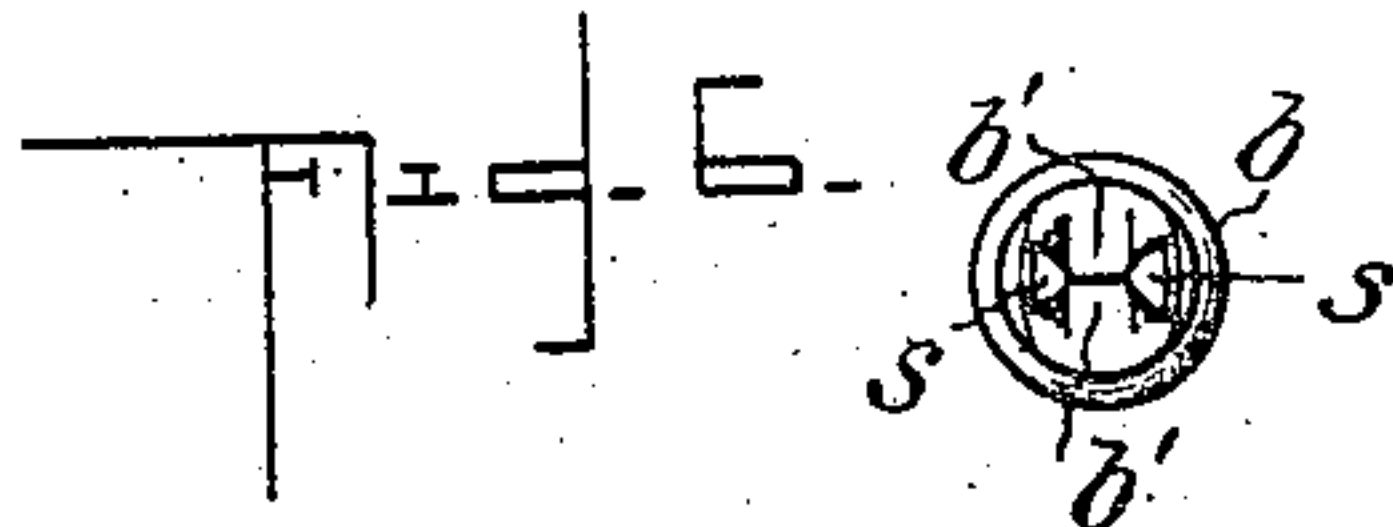
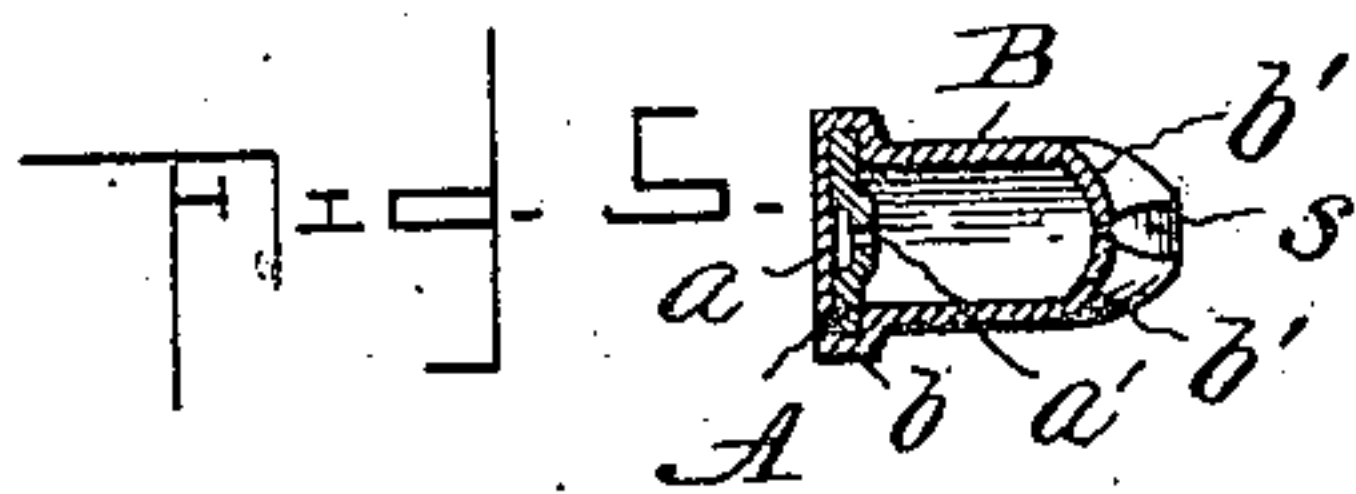
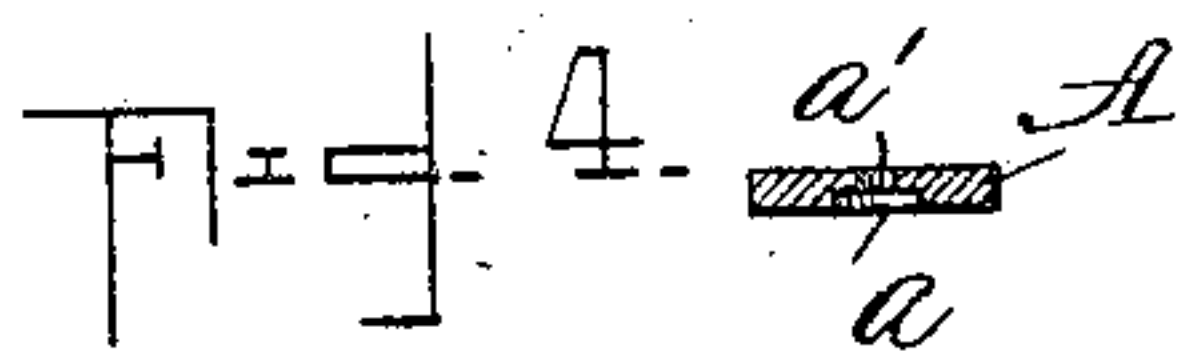
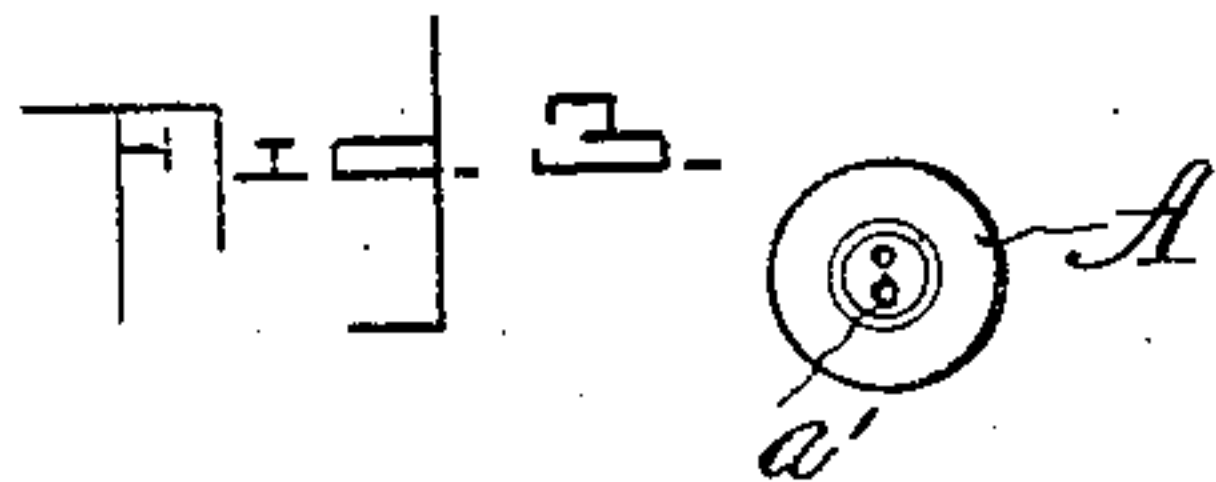
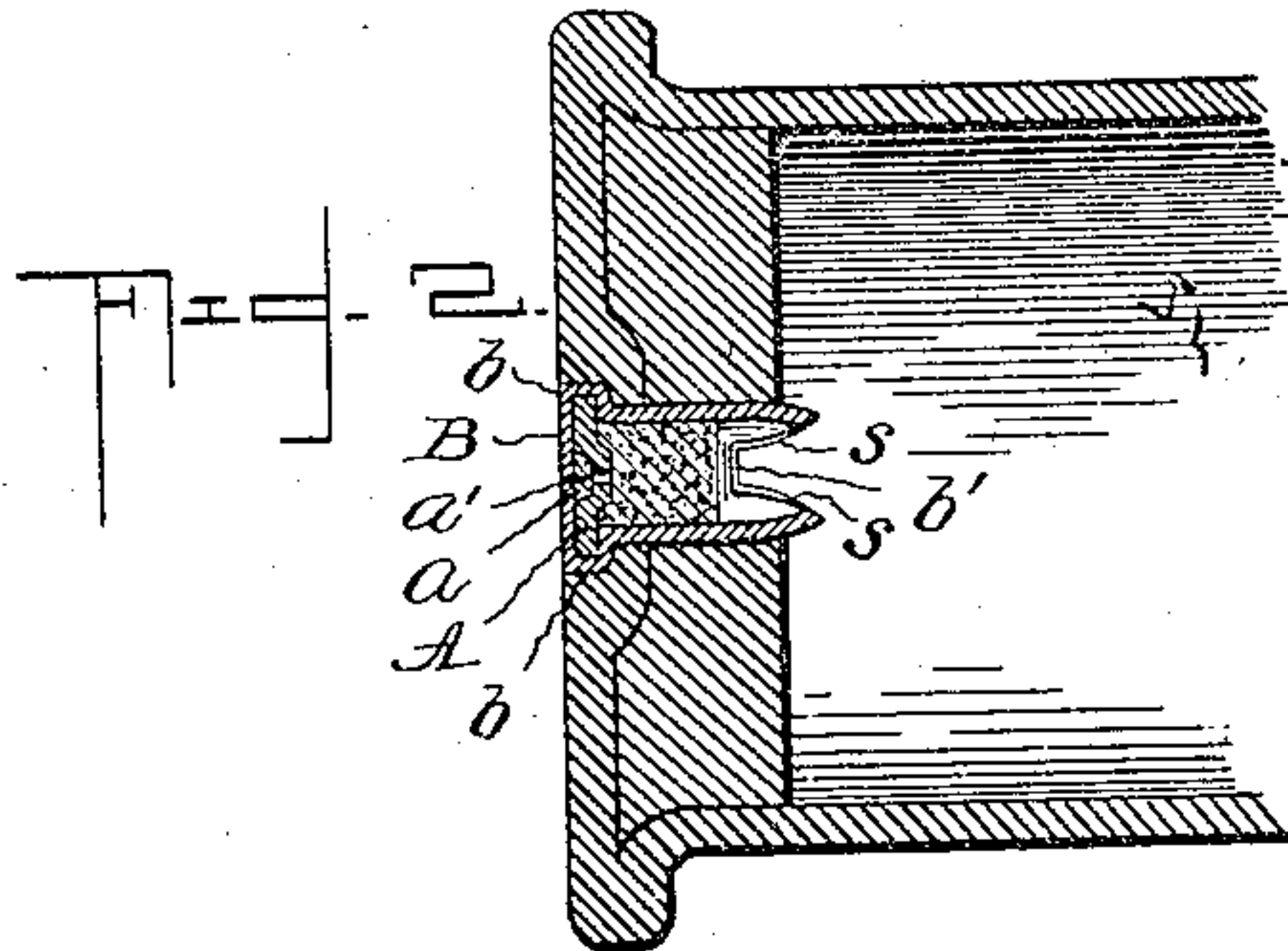
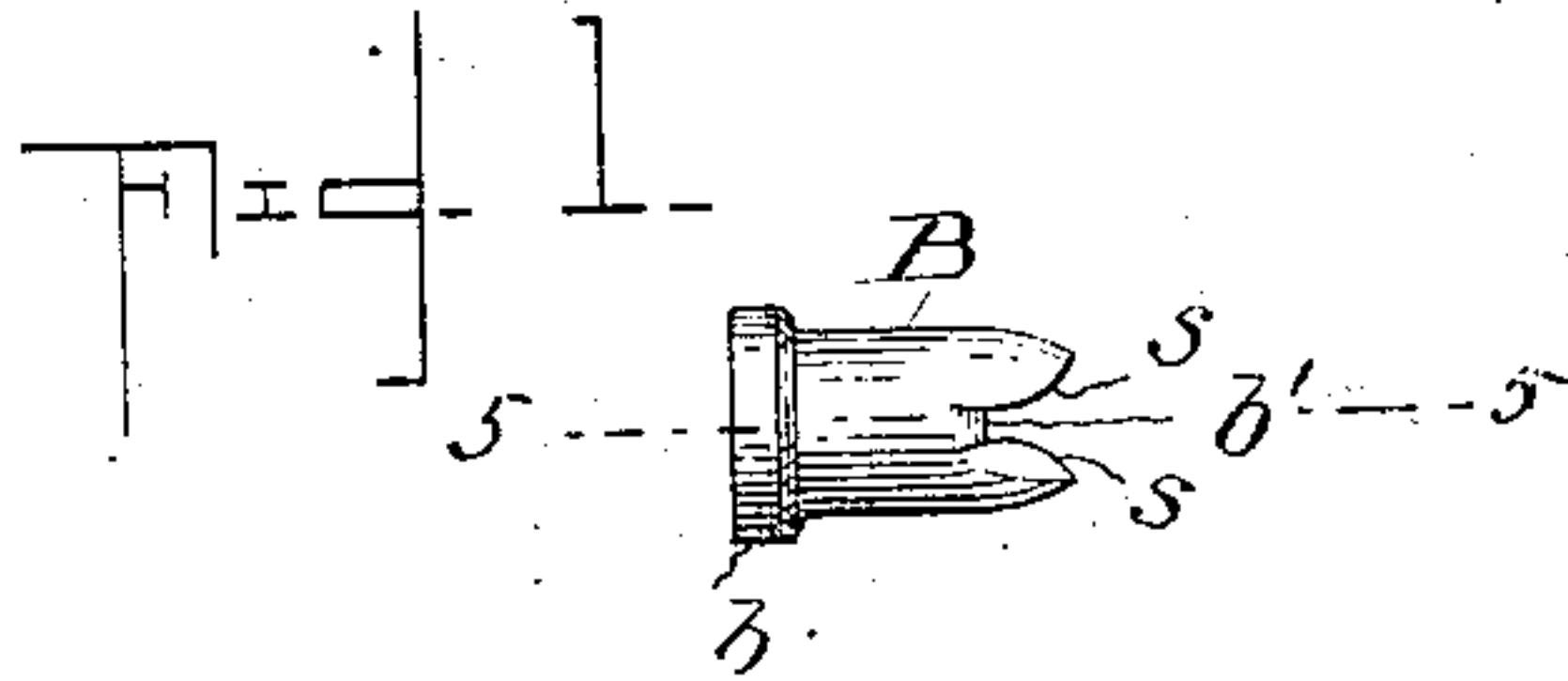
No. 745,761.

PATENTED DEC. 1, 1903

C. A. BAILEY.
PRIMER.

APPLICATION FILED JULY 30, 1903.

NO MODEL.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES A. BAILEY, OF CROMWELL, CONNECTICUT.

PRIMER.

SPECIFICATION forming part of Letters Patent No. 745,761, dated December 1, 1903.

Application filed July 30, 1903. Serial No. 167,636. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. BAILEY, a citizen of the United States, residing at Cromwell, in the county of Middlesex and State of Connecticut, have invented a Primer, of which the following is a specification.

The objects of my invention are to provide a primer for cartridges which will be effective in use, will thoroughly protect the fulminate from accidental explosion either by impact of an extraneous object other than the firing-pin or in the operation of loading the cartridge, and which will present a small amount of fulminate to the anvil to insure a flash that will ignite the balance of the fulminate in the primer. These objects are attained by a particular form of primer consisting of a cap and an anvil or disk, over the edge of which latter the cap is flanged to hold the parts firmly together and provide a substantial bearing for the primer in the head of the cartridge, the said anvil or disk being stamped or hollowed out to form a small central cavity communicating with the body of the primer, while the open end of the cap is compressed at opposite sides to practically close said end with the exception of two small openings, all as hereinafter fully described, and specifically set forth in the appended claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a side elevation of a primer constructed in accordance with my invention. Fig. 2 is a sectional view of the same and showing its application to a cartridge. Fig. 3 is a detail view of the anvil or disk. Fig. 4 is a view showing a modification of the anvil or disk. Fig. 5 is a sectional view on line 5 5, Fig. 1. Fig. 6 is an end view.

Similar letters of reference indicate similar parts in the several views of the drawings.

In carrying out my invention I employ an anvil or disk A, which is held in the head of the cap B by means of the flange b, spun over the edge of said anvil or disk, whereby the flange of the cap not only serves to hold the anvil securely in place, but is also reinforced thereby, and the said anvil has a bearing directly upon the head of the cartridge, as shown in Fig. 2. The central portion of the anvil is stamped outward, as in Figs. 2 and 3, or

hollowed out in case a thicker anvil or disk is employed, as in Fig. 4, to provide a small central cavity a, having flash-holes a', communicating with the body of the cap or primer. This cavity is slightly larger than the end of the firing-pin and is of such depth as to contain only a comparatively small part of the fulminate, the balance of which latter is contained within the body of the cap. The inner wall of the cavity provides the anvil proper, against which the fulminate is exploded by the firing-pin, and as this cavity is comparatively small in diameter the fulminate contained therein is protected by the body portion of the anvil or disk in that to explode the primer it must be struck exactly in the center and by an object or point not larger than the end of the firing-pin. This provides a primer that is practically proof against accidental explosion and which when struck by the firing-pin in the usual manner will explode the fulminate contained in the cavity in the anvil or disk and communicate the flash to the fulminate located in the body of the primer.

In order to prevent an explosion of the primer from an impact at the open end of the cap—for instance, in loading a cartridge provided with such primer—the said open end is slightly contracted and partially closed by compressing the opposite sides together, as at b', leaving only two small holes, as s s, this operation being effected after the fulminate is inserted. After the fulminate or other priming material is inserted in the cap and before the open end of the latter is closed, as hereinbefore described, a drop of hard drying varnish or gum is placed upon the fulminate to further protect the same.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A primer comprising a cap having an outwardly-projecting lateral flange at the closed end thereof, and a disk the edge of which projects into the aforesaid flange of the cap, the said disk having a cavity slightly larger than the point of the firing-pin, and the fulminate placed in said cavity and body of the cap, substantially as shown and for the purpose set forth.

2. A primer comprising a cap having an out-

wardly-projecting lateral flange at the closed end thereof forming an internal annular recess, a disk in the cap against the head thereof with its edges projecting into the annular recess of the flange and said disk struck up centrally to provide a cavity between the head and the disk with flash-holes through the inner wall of said cavity, and fulminate in the cavity and in the body of the cap, substantially as shown and for the purpose set forth.

3. A primer comprising a cap, a disk in the closed end thereof and over the edges of which the cap is spun to provide an outwardly-projecting lateral flange, a portion of said disk being recessed on its inner side to provide a cavity communicating with the body of the cap by flash-holes, and the fulminate placed in the cavity and body of the cap, substantially as shown and described.

4. A primer comprising a cap, a thin disk placed therein against the head thereof and over the edges of which disk the cap is spun to hold the disk and provide an outwardly-projecting flange at the closed end of the cap, the said disk being struck up to provide a cavity communicating with the body of the cap through flash-holes, and the fulminate placed in the cavity and body of the cap, substantially as shown and for the purpose set forth.

5. A primer comprising a cap the open end of which is closed centrally by bending two opposite sides of the cap together providing substantially vertically-disposed openings at either side of said closed portion, an anvil in the cap, and the fulminate, substantially as shown and for the purpose set forth.

6. A primer comprising a cap the open end of which is closed centrally by bending two opposite sides of the cap together leaving substantially vertically-disposed openings at either side of said closed portion, a disk placed in the cap against the head thereof and over the edges of which disk the cap is spun to hold said disk and provide an outwardly-projecting flange reinforced by said disk, the center portion of the disk being struck up to provide an inner cavity communicating with the body of the cap by flash-holes through the inner wall of said cavity, and the fulminate in the cavity of the disk and body of the cap, substantially as shown and for the purposes set forth.

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

CHAS. A. BAILEY.

Witnesses:

THOS. W. BEAUMONT,
ARTHUR BOARDMAN.