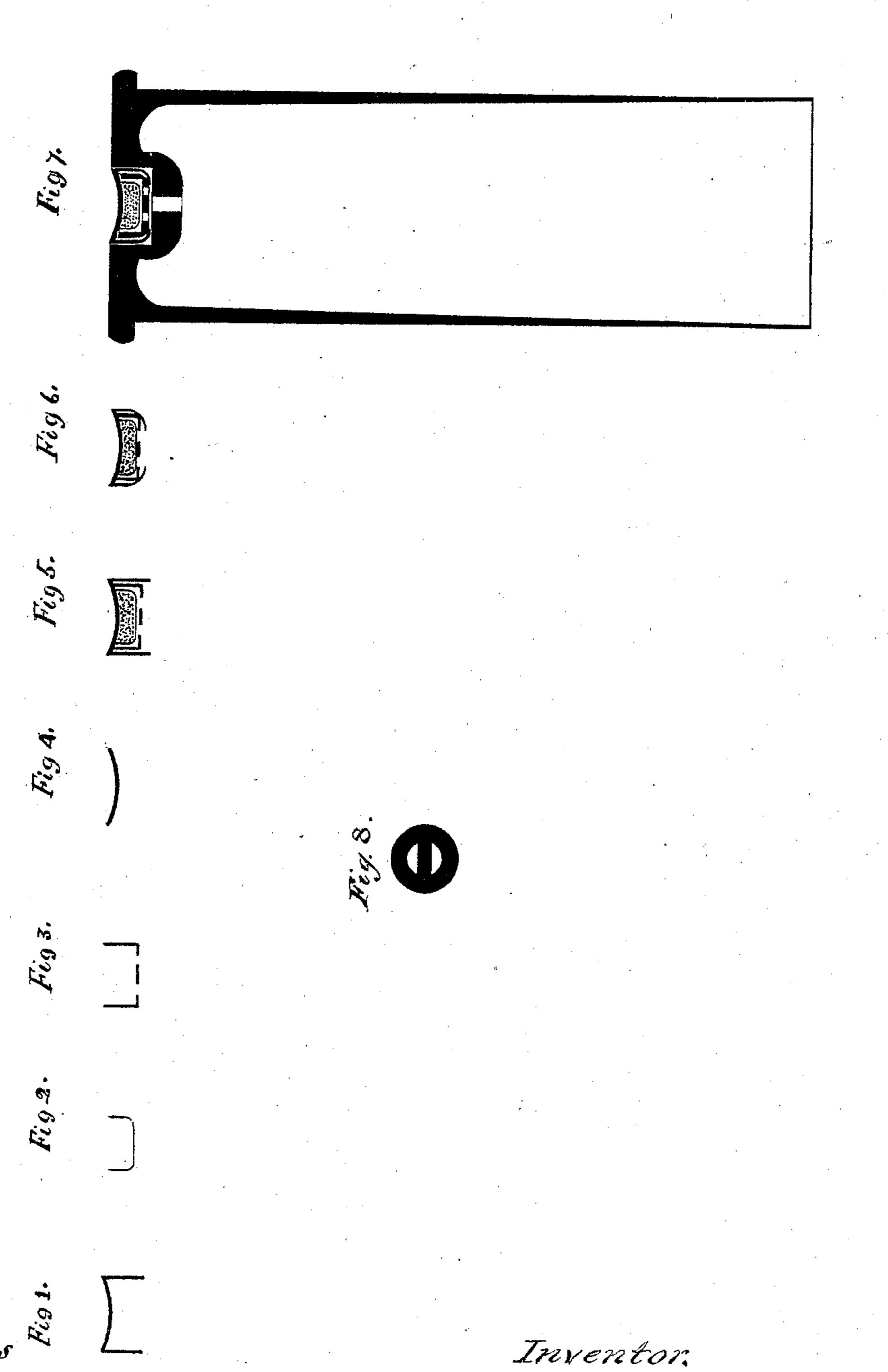
## De W. C. FARRINGTON.

## Primers for Cartridges.

No. 133,929.

Patented Dec. 17, 1872.



AM PHOTO-LITHOGRAPHIC CO.N.Y. (OSBORNE'S PROCESS.)

De Witt-Clinton Farrington

## UNITED STATES PATENT OFFICE.

DE WITT C. FARRINGTON, OF LOWELL, MASSACHUSETTS.

## IMPROVEMENT IN PRIMERS FOR CARTRIDGES.

Specification forming part of Letters Patent No. 133,929, dated December 17, 1872.

To all whom it may concern:

Be it known that I, DE WITT C. FARRING-TON, of Lowell, county of Middlesex, and Commonwealth of Massachusetts, have invented an Improvement in Cartridge-Primers, of which the following is a specification:

Said primers are composed of cups or disks,

as described by Figs. 1, 2, 3, and 4.

Figure 1 is the outer cup, having its closed end concaved. Fig. 2 is a cup made from thin metal and filled with fulminating powder. Fig. 3 is the anvil disk or cup, composed of bars or a grate of metal, made in such form as may be deemed practicable, through which the gases may pass into the cartridge through a hole in the base of the shell. Fig. 4 is a disk or modified form of a cup which may be used for holding the fulminating powder. Fig. 8 is an end view of Fig. 3.

In assembling the parts, Fig. 2 or Fig. 4, being filled with fulminating powder, is inserted in anvil-cup, Fig. 3. These two are then inserted within cup, Fig. 1, as shown in Fig. 5. The cup, Fig. 1, is then crimped or closed over cup, Fig. 3, as shown in Fig. 6. The primer is then inserted within the base of the cartridge-shell, as shown in Fig. 7. The primer being struck by the firing-pin or exploder of the fire-arm the fuminating powder explodes, bursting the lining-cup, Fig. 2, and the fire is communicated to the charge through the open-

ings in cup, Fig. 3, and the hole a in the cartridge-shell. Cup, Fig. 3, is made of thick metal and forms an anvil, upon which to explode the fulminating powder when the outer cup is driven in by the firing-pin or exploder.

The object of this invention is to produce a primer with an anvil nearly in the line of the firing-pin to prevent the fulminating powder from being driven out or displaced by the blow of the same, and also to bring the surface of the outer cup nearer that of the anvil to insure certainty of ignition with a weaker blow than otherwise; and also to carry the outer surface of the primer below the plane of the head of the cartridge for greater safety in handling or transportation.

I claim as my invention—

1. The primer herein described, consisting of an outer cup and an inner perforated disk or cup, when the latter is lined and primed, as set forth.

2. The combination of an outer cup having a concave base, and an inner anvil cup or disk having two or more perforations, with a bridge across the center, substantially as shown, for the purposes set forth.

DE WITT CLINTON FARRINGTON.

Witnesses:

WALTER H. McDaniels, Willis Farrington.