

FARREL'S

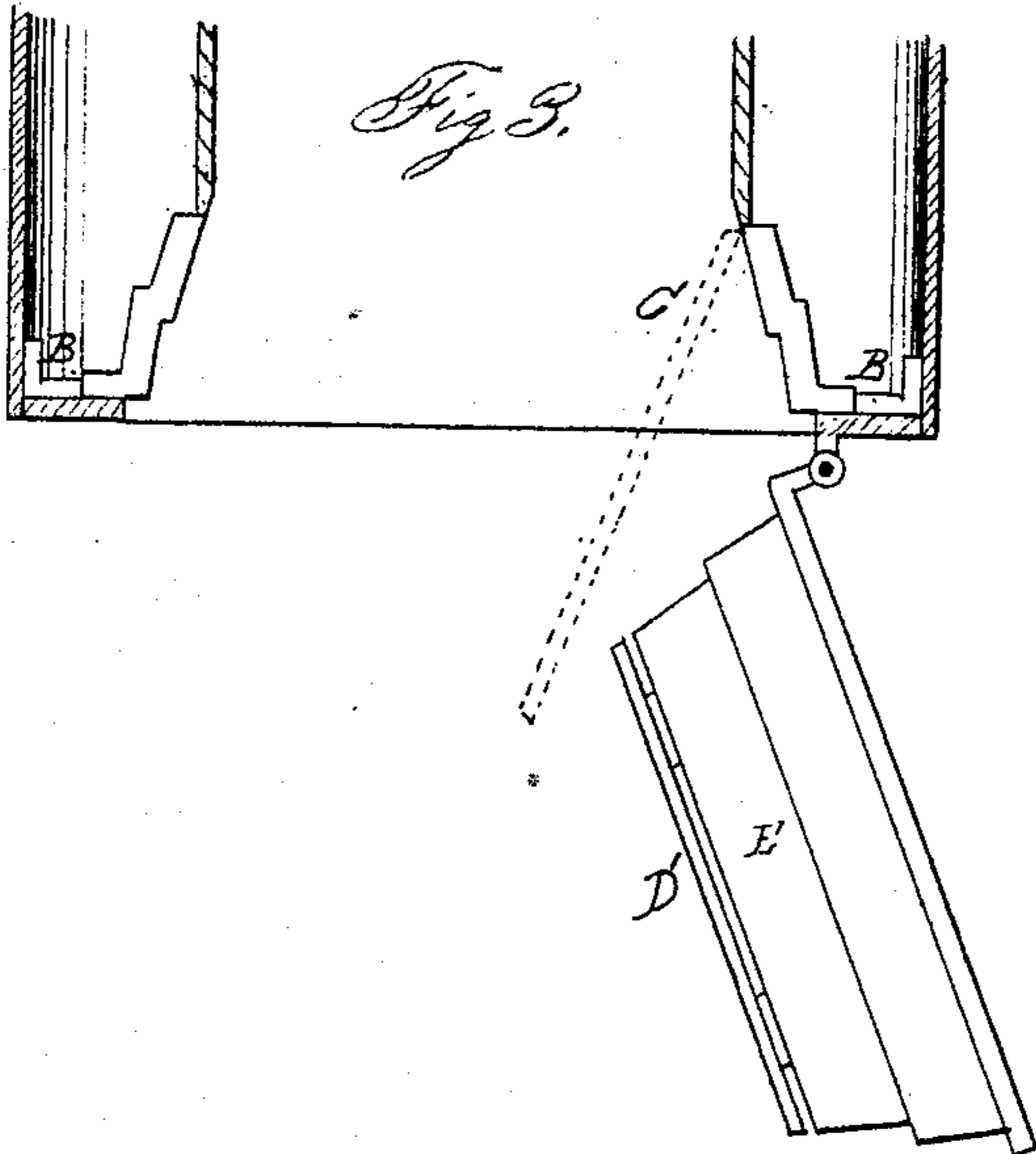
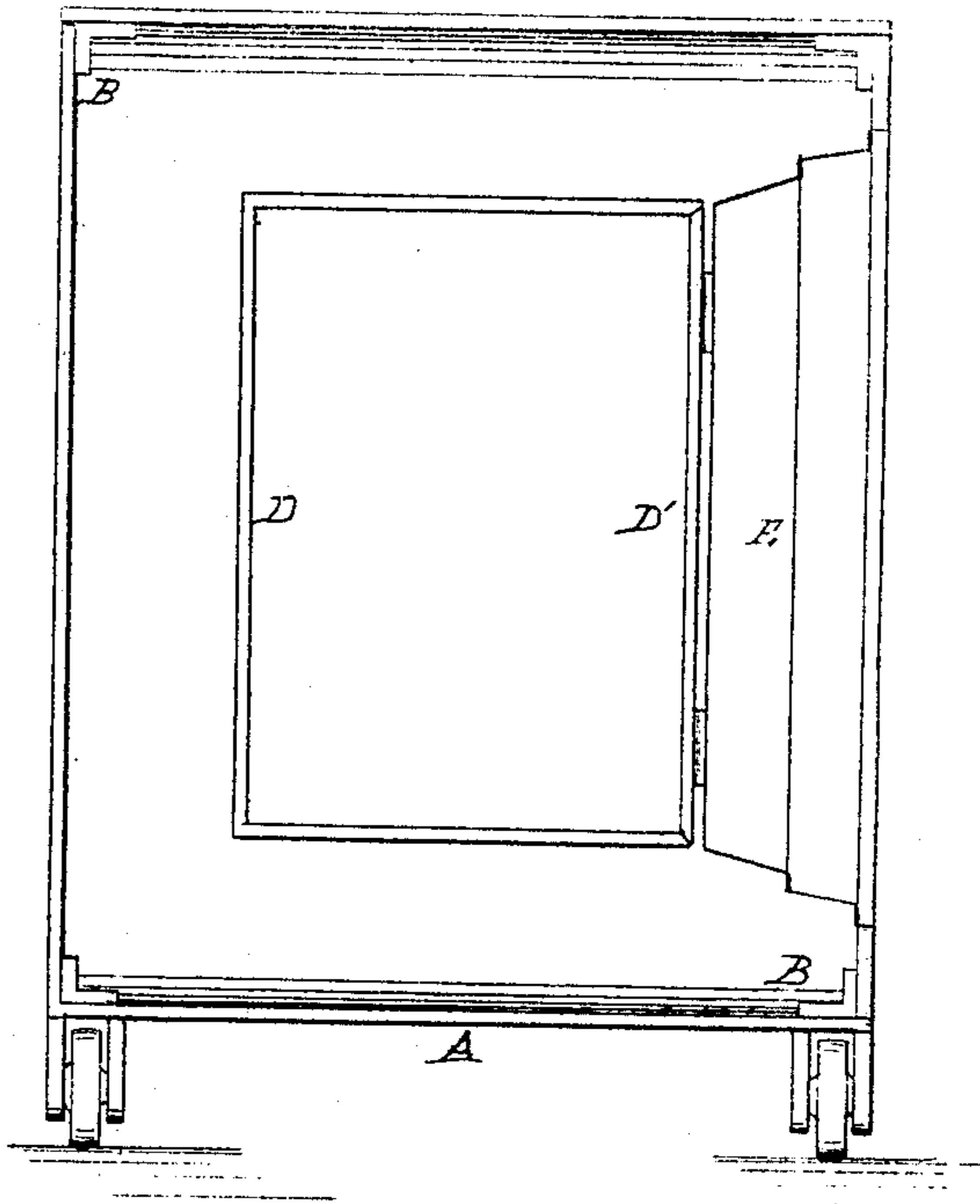
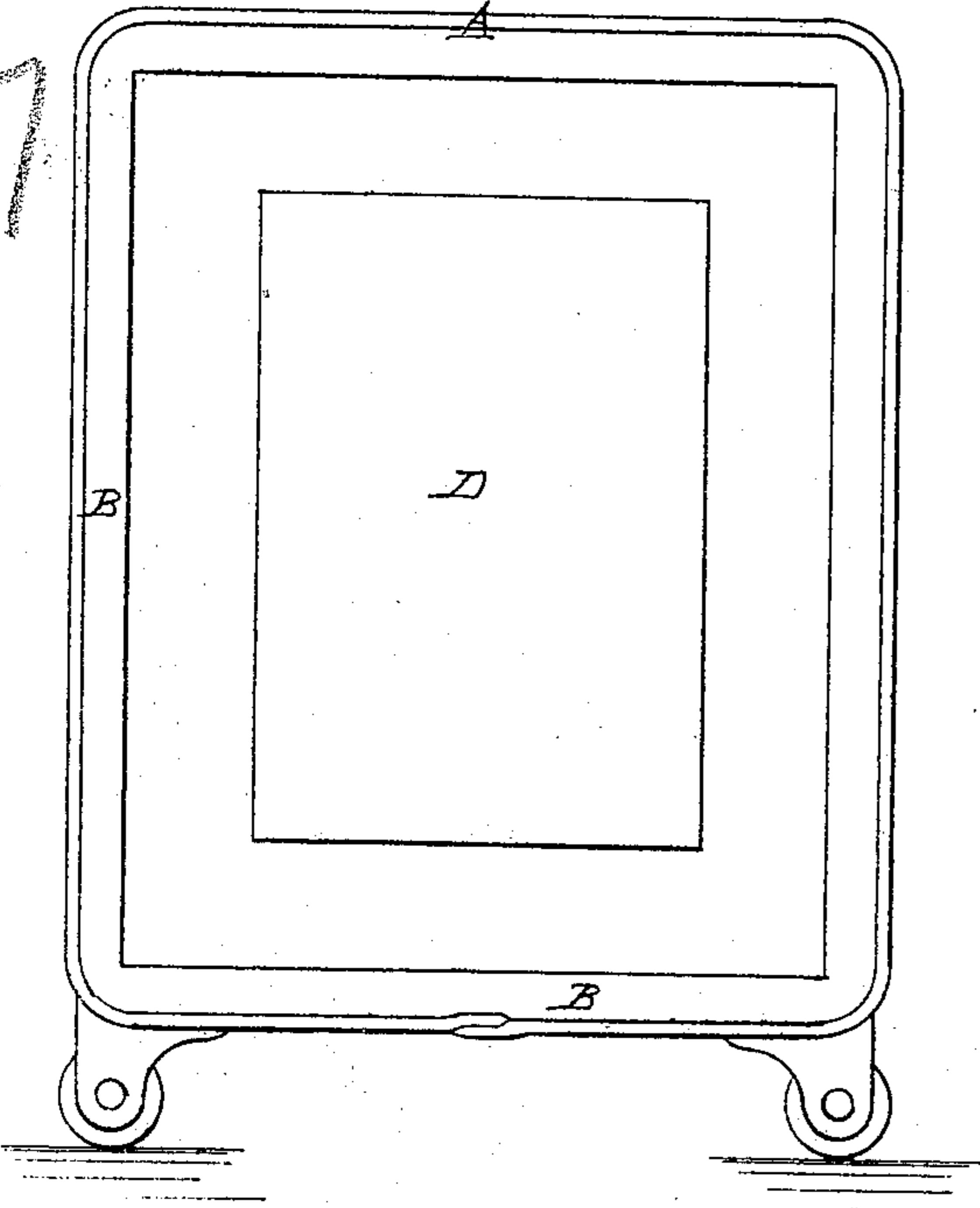
*Improvement in  
Fire Proof Safes.*

No. 121,710.

Patented Dec. 12, 1871.

*Fig. 1.*

*Fig. 2.*



*Witnesses*

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## UNITED STATES PATENT OFFICE.

JOHN FARREL, OF NEW YORK, N. Y.

## IMPROVEMENT IN SAFES.

Specification forming part of Letters Patent No. 121,710, dated December 12, 1871.

*To all whom it may concern:*

Be it known that I, JOHN FARREL, of the city, county, and State of New York, have invented certain new and useful Improvements in Fire-Proof Safes; and the following is a specification thereof.

The said invention relates in part to the general construction of fire-proof safes, with a view to enhanced lightness, strength, and economy of production, protection of the contents, such as books and papers, and convenience of access to the interior.

Referring to the drawing hereto annexed, Figure 1 is a vertical section, showing the safe as with the back removed. Fig. 2 is a vertical section, representing a side removed. Fig. 3 is a transverse horizontal section, showing the arrangement of the book-case front.

The paramount object of the outer shell or casing of a fire-proof safe is to provide a receptacle for the fire-proof filling thereof sufficiently strong to hold such filling securely and preserve the safe intact through the exigencies of an accidental fire. My improvement proposes to answer these requirements in a shell or frame combining lightness with increased strength and diminished cost.

To enable others skilled in the art to comprehend my invention, I will proceed to describe the same.

In the drawing, A represents the outer shell (of sheet metal or metal plate) of the body of the safe.

This shell, as found in other safes, is commonly made up of four or more separate sheets or plates, having flat strips of metal riveted on the outside thereof. My system of construction is quite different. Instead of using several separate plates I form four of the sides from a single sheet, as illustrated in Fig. 1, but one plate (that for the back) being then required to complete the whole, the door excepted; thus producing a casing or shell combining lightness with increased strength, and one capable of maintaining its shape and entirety when the metal is heated and pliable, while other safes will warp open and allow the fire-proof composition to escape, jeopardizing the contents of the safe.

To further insure the unity of structure and form I introduce light angle-bars B of steel or iron, and secure them to the inside of the shell, as illustrated in the drawing. These, while imparting greater stiffness than the ordinary flat bars applied to the outside, also enhance economy in manufacture, as the interior bars are left in the rough, being concealed by the casing or shell; whereas the exterior bars require an amount of finishing that involves considerable time and labor.

It will therefore be apparent that the casing made on my improved plan is of cheaper construction, requiring less than the ordinary number of parts and no finish; that it will be stronger, though made of lighter metal; and that, owing to the unity of its structure, the safe will, without fracture or opening of seams, successfully endure severe tests.

D represents the book-case or inner chamber for containing the books, papers, or other valuables. It is made of wood in order to enhance the protection of the papers from injury, to which they would be exposed if it, like the casing or shell, were of metal.

In case of the fall of the safe during a fire, as through a burning building, a frequent occurrence, the safe often falls and remains on its face, throwing the contents against the door, which, being of metal, and more or less heated, is liable to discolor the books and papers, sometimes rendering the latter illegible. The book-case front, or usual wooden door of the book-case, prevents this; but when hinged to one side of the case D in the way commonly practiced, as indicated by the dotted lines at *c* in Fig. 3, it interferes with the free access to the interior, and for that and incidental reasons it is often omitted. I obviate all such objections by attaching said book-case front to the safe-door E, as represented in the drawing. This arrangement removes it quite out of the way when the safe door is open, and places it in its required position when the door E is closed, thus dispensing with the necessity of opening and closing an extra door and the expense of hinges and lock, and their repairs, while the non-liability of the front to heat protects the papers which

may chance to lie against the safe-door from discoloration and injury.

I claim—

The construction of the safe, consisting of the shell, having its four sides formed of the same sheet of metal, supported and braced within by angle inside sustaining bars, in combination with

a book-case of wood, having its wooden door affixed to the door of the safe, all substantially as specified.

JOHN FARREL.

Witnesses:

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FRANK O. HERRING.

(128)