

JAMES F. RYDER.

Improvement in Non-Corrosive Metal-Coated Plate-Holders.

Patented May 16, 1871.

No. 114,864.

Fig.1.

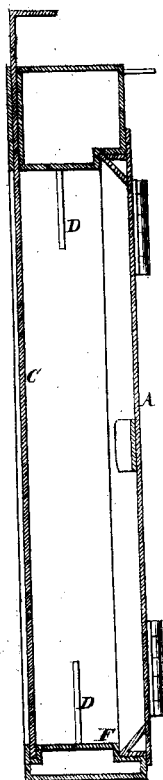
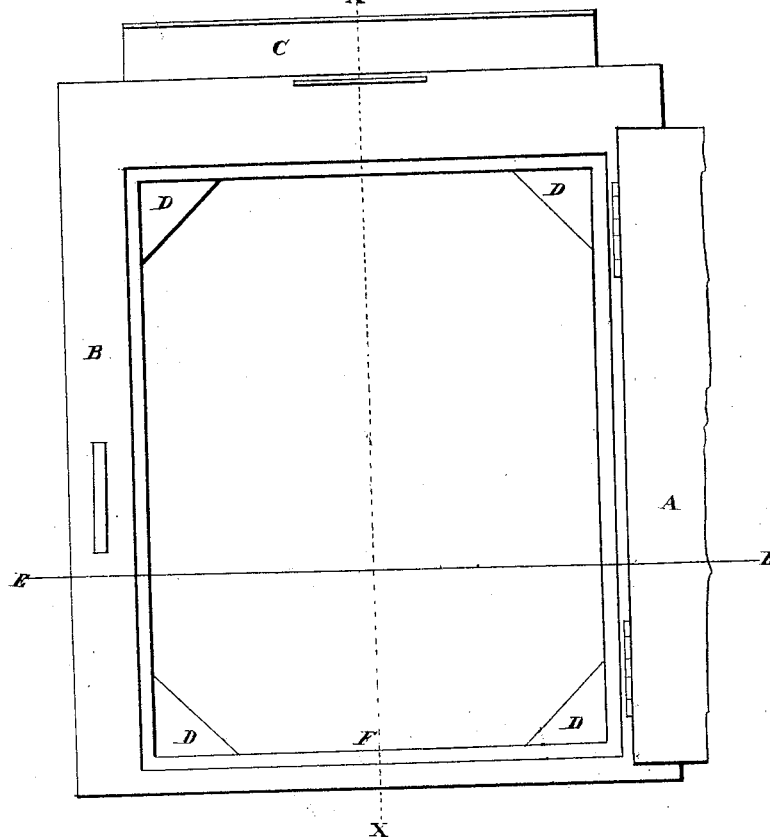


Fig.2.



Inventor.

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Witnesses.

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# United States Patent Office.

JAMES F. RYDER, OF CLEVELAND, OHIO.

Letters Patent No. 114,864, dated May 16, 1871.

## IMPROVEMENT IN NON-CORROSIVE METAL-COATED PLATE-HOLDERS.

The Schedule referred to in these Letters Patent and making part of the same.

### *To all whom it may concern:*

Be it known that I, JAMES F. RYDER, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and improved Non-Corrosive Metal-Coated Plate-Holder; and I do hereby declare that the following is a full, clear, and complete description of the same.

The nature of this improvement relates to a photograph-plate holder, the frame of which is made of a base metal, and then coated with gold, silver, nickel, or other non-corrodible metal; or the said frame may be made partly of metal and wood or other suitable material, and then coated over wholly or in part with gold, silver, or other non-corrodible metal, the object being to make the frame cheap, light, and durable, and at the same time able to resist the action of the acid in the nitrate-of-silver bath or solution used in photography.

To more fully explain this improvement reference will be had to the annexed drawing making part of this specification, in which—

Figure 1 is a section in the direction of the line *x x*.

Figure 2 is a front view, with a part of the door removed.

This improvement is not confined to the plate-holder herein described, as it is applicable to others of different construction.

The one herein shown is provided with a hinged door, A, frame B, slide C, and corner-piece D, for the usual purposes.

The frame is hollow, as indicated in fig. 1, and it may be made of wood or other suitable material or materials above the line E, and below this line of base metal suitable for this purpose, and the parts connected together by any suitable means, though the metal or wood, &c., portion of the frame may extend above or below said line E, as may be expedient; but in all cases the lower portion of the frame is made of a base metal suitable for coating with a non-corrodible metal, to prevent the base metal from being acted upon by the acid of the silver bath.

Plate-holders, as usually made, are of wood, and as there is more or less free acid in the silver solution the acid and the solution attack the fiber of the wood, soon rendering the holder worthless by destroying the integrity of the material of the frame. This is caused by the drippings from the plate when it is taken from the solution or bath and put into the frame. The silver solution, as it runs or drips off the plate, comes in contact with the bottom of the frame at F and penetrates the wood and joints at the base of the holder, which soon causes it to be unfit for use. The upper parts of the holder are not affected to the same extent.

These evils and difficulties are effectually avoided by making the base or lower part of the frame, which is the most exposed, of a metal that can be coated with a non-corrodible metal to resist the action of the acid in the nitrate-of-silver solution or other forms of solution for this purpose.

In case base or corrodible metal forms the lower part of the frame or holder, and not coated or covered to prevent oxidation by the action of the solution dripping from the plate, the coating upon the plate, when in the holder, is liable to be more or less affected or injured by the chemical action of the oxide of the metal of the frame as it may be deposited upon the film of the plate by the drippings of the nitrate of silver. These difficulties are obviated by the use of my improvement.

### *Claim.*

What I claim as my improvement, and desire to secure by Letters Patent, is—

A plate-holder, with the frame thereof made in part or in whole of base metal, and coated in whole or in part with gold, silver, nickel, or other non-corrodible metallic covering, for the purpose set forth.

JAMES F. RYDER.

Witnesses:

W. H. BURRIDGE,  
J. H. BURRIDGE.