

N. BELCHER.

Stereopticons for Dissolving-Views.

No. 149,286.

Patented April 7, 1874.

Fig 1.

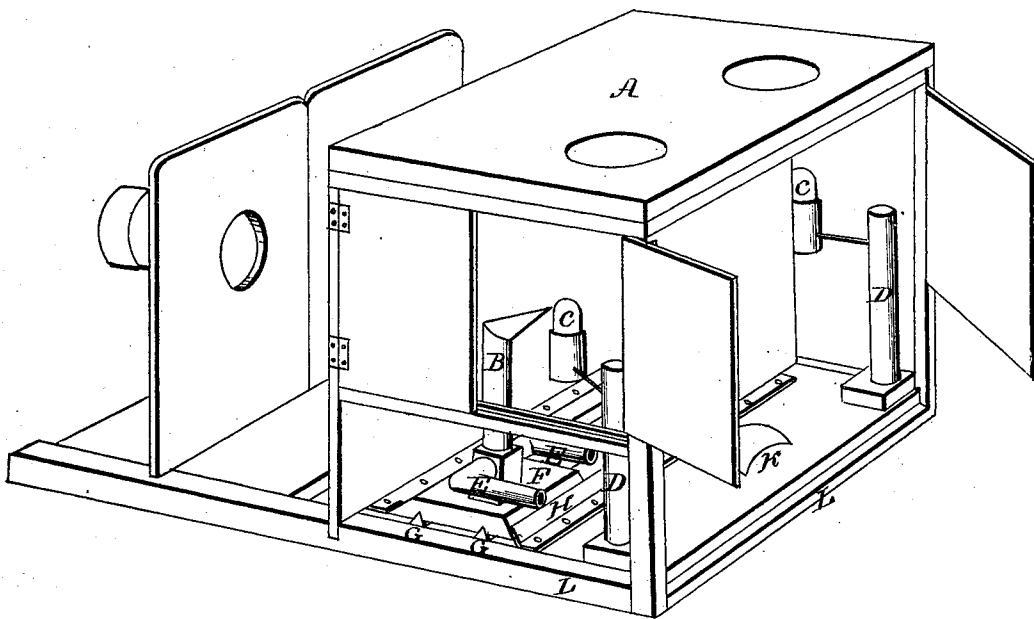
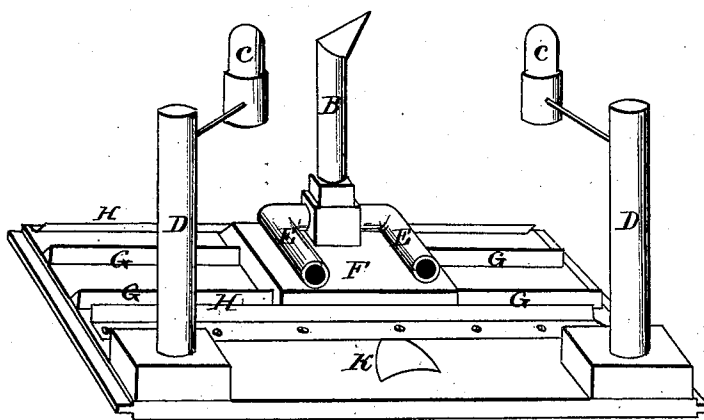


Fig 2.



Witnesses:

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UNITED STATES PATENT OFFICE

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IMPROVEMENT IN STEREOPTICONS FOR DISSOLVING VIEWS.

Specification forming part of Letters Patent No. **149,286**, dated April 7, 1874; application filed January 14, 1874.

To all whom it may concern:

Be it known that I, NATHANIEL BELCHER, of Boston, in the county of Suffolk, State of Massachusetts, have invented a certain new and useful Improvement in Dissolving Stereopticons, of which the following is a description sufficiently full, clear, and exact to enable any person skilled in the art or science to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is an isometrical perspective view of my improved stereopticon. Fig. 2 is a sectional view of the illuminating mechanism.

Like letters refer to like parts in the different figures of the drawing.

My invention relates more especially to that class of stereopticons used in exhibiting dissolving views by means of the oxyhydrogen or lime light; and consists in a novel construction and arrangement of the parts, as hereinafter more fully set forth, the object being to effect a saving in the gas used, at the same time producing better results than have heretofore been attained.

The simplicity of my invention renders an elaborate description unnecessary.

In the drawing, A is the camera; B, the gas-burner; C C, lime points disposed in holders projecting from the standards D D. The burner B is mounted on the carriage F, which is arranged to slide on the V-shaped ways G G, being held in position on the ways by the guides H H. The burner B is supplied with hydrogen and oxygen gas through the pipes E E', respectively, the light being thrown upon the picture, and the image magnified and projected upon the screen by the usual arrangement of lenses.

From the above description the nature and operation of my invention will be readily understood by all conversant with such matters.

The slides or pictures for exhibition being arranged in the camera in the usual manner, and the lime points C C placed opposite their respective lenses, gas is let on through the pipes E E', and the burner B lighted. The carriage F is then moved on its ways G G, until the jet is brought into contact with one of the points C, by which a powerful light will be produced, the rays from which will be thrown directly or without reflection upon the first or double plano-convex lens, and thence through the magnifier to the screen. After

the picture thus produced has been exhibited as long as desirable, the carriage is moved until the gas-jet is brought into contact with the other lime point, and the remaining picture exhibited, during which the slide first used can be changed.

The beauty of an exhibition of this character is greatly enhanced by the dissolving effect produced by gradually withdrawing the light from one picture and throwing it upon another, projecting it upon the same screen. This can be accomplished more perfectly by means of my improved illuminating apparatus than in any other manner of which I have any knowledge. The burner B, being securely attached to the carriage F, is prevented from vibrating, and thereby causing the picture to "flicker" on the screen, and is always brought into a correct position with respect to the points C C, which cannot be done where a single burner is used in the ordinary manner; and where two burners are used it is necessary to alternately let on and turn off the gas—an operation impossible to perform accurately or twice alike without great care and the use of perfectly-adjusted apparatus.

I sometimes use a single lime point, and mount it on the same carriage with the burner B, stops being arranged on the slides G G, to gage the movements of the carriage, so that the point may always be brought to a correct position with respect to the lens; but I prefer the method shown.

I am aware that a single gas-jet and lime point have been used in a camera of this nature, in which the tubes were set radially in the box, and the light reflected or thrown upon the screen by means of reflectors disposed on the outer side of the camera; but reflected light has been found to produce a far less brilliant picture than the direct rays obtained by my improved device. I therefore do not claim a camera so arranged and operated, nor any part thereof, when in and of itself considered; but

What I claim is—

In a camera for the exhibition of dissolving views, the illuminating apparatus described, consisting of the burner B, pipes E E', sliding carriage F, and lime points C C, arranged to operate substantially as and for the purpose specified.

Witnesses: NATHANIEL BELCHER.

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