T. C. ROCHE.

Stereoscopic Apparatus.

No. 26,525. Patented Dec. 20, 1859.

Fig. 1,

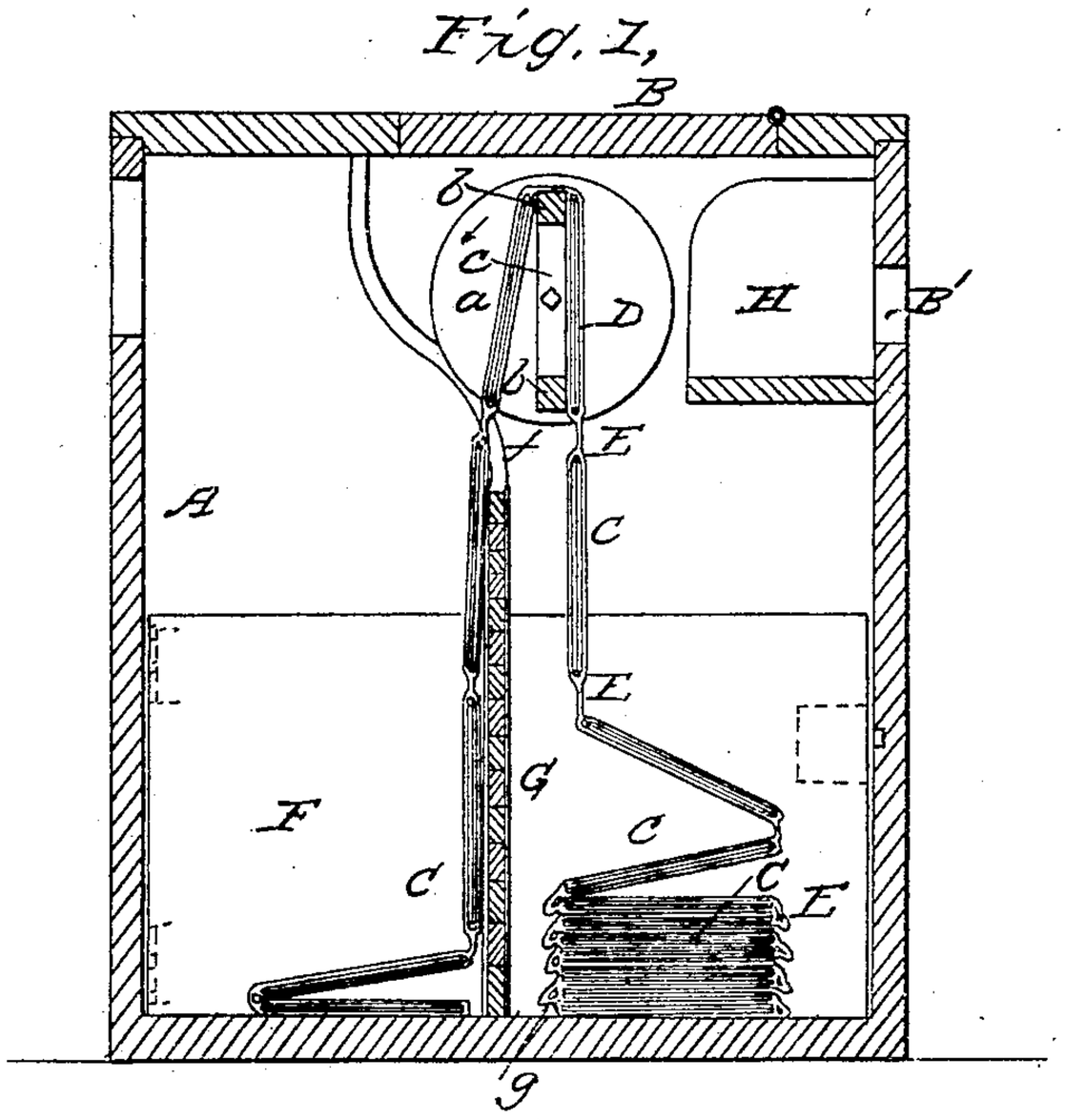


Fig. 2,

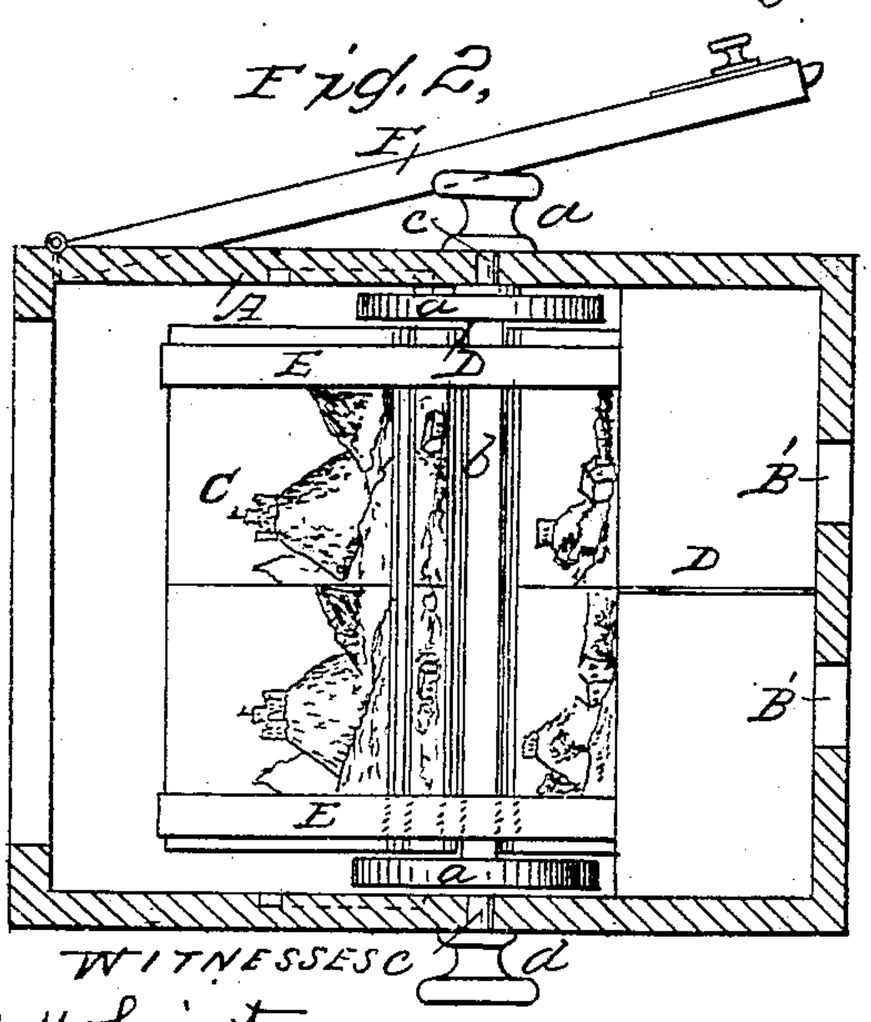
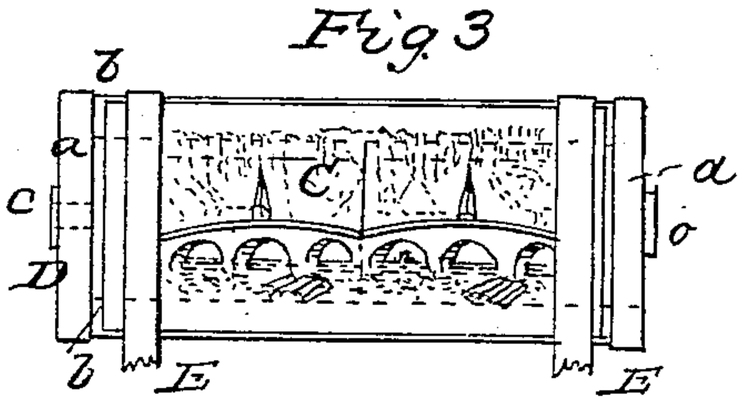


Fig 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS C. ROCHE, OF NEW YORK, N. Y.

STEREOSCOPIC APPARATUS.

Specification forming part of Letters Patent No. **26,525**, dated December 20, 1859.

To all whom it may concern:

Be it known that I, THOMAS C. ROCHE, of the city, county, and State of New York, have invented a new and Improved Stereoscopic Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a transverse vertical section of this invention. Fig. 2 is a horizontal section of the same. Fig. 3 is a detached view of the wheel with a portion of the chain of pictures.

Similar letters of reference in the three views indicate corresponding parts.

This invention consists, first, in the employment of a skeleton-wheel for the purpose of bringing the pictures, one after the other, before the eyeglasses, whereby transparent pictures can be exhibited as well as paper pictures; second, in a particular arrangement of the pictures in such a manner that two pictures are always placed back to back, and that one is upright when the other is upside down, the whole number being connected by tapes into a chain, whereby double the number of pictures can be exhibited from the same eyeglasses by simply shifting the pictures from one side of the box to the other, which will be hereinafter more fully explained; third, in arranging a door near to the bottom of the box for the purpose of facilitating a change of the pictures, in combination with a sliding partition, so that the whole pile of pictures can be shifted from one side of the box to the other without disturbing their relative position toward each other.

To enable those skilled in the art to make and use my invention I will proceed to describe it.

The box A is arranged with a reflector, B, and with eyeglasses B′, in the usual manner. The pictures C are brought up before the eyeglasses by means of a skeleton wheel, D, that consists simply of two disks, *a*, connected by two bars, *b*, which are at equal distances from the centers of said disks, one opposite to the other. The axles *c* of the disks extend through the sides of the box, and knobs *d* on the outside serve to rotate the wheel. The distance of the two bars *b* corresponds with the width of ordinary paper pictures, and the open space between said bars is sufficiently large so that the same do not interfere with the exhibition of glass or other transparent pictures. The pictures C are placed on tapes E, at such distances apart that the tape between two successive pictures extends across the edge of that one of the bars *b* which is on the top, as clearly shown in Fig. 1, and strips of india-rubber or other elastic substance serve to hold the pictures in their places. Where paper pictures are used I place two of them back to back, one being upright and the other upside down, and when the same are passed over the wheel or picture-carrier D they arrange themselves on the bottom of the box, one on the top of the other in a pile, and after all the pictures on one side of the chain have thus been exhibited the whole pile is shifted back to the same place from which the exhibition was first commenced, and the pile is now in the precise order to exhibit the other side of the chain. When transparent pictures are to be exhibited, every other panel in the chain is filled with plain glass, and in the other panels only one picture is placed, so that when the chain is passed over the wheel D the side toward the eyeglasses contains the pictures and the other side the plain glass panels.

In order to facilitate the change of the pile of pictures after the whole series of them has been passed over the picture-carrier, I have arranged a door, F, in the side of the box and close down to the bottom of the same, so that by opening the door the pile can readily be changed from one side of the box to the other, or that all the pictures can be taken out and new ones put in with as little trouble as possible. The lower part of the box is divided into two compartments by a partition, G, under the wheel D, so that the pictures as they come down from the picture-carrier or wheel are guided to the proper place, as clearly shown in Fig. 1. This partition is so arranged that it slides up in a groove, *f*, or it may be made so as to slide out in any other direction, so that it can be taken out after the chain of pictures has been passed over the picture-carrier, and that the pile of pictures can be pushed from one side of the box to the other without disturbing the relative position of the same. A divider, H, is fastened between the eyeglasses, extending nearly to the picture-carrier or wheel D. This divider is of the

utmost importance where the pictures are brought before the eyeglasses by means of a wheel or picture-carrier which must necessarily allow some side play to said pictures. Without this divider the position of the eyes has to be changed for each picture, and sometimes it is utterly impossible to get a correct view of a picture without shifting it a little toward one side or toward the other, while, when the divider is used, no great harm arises if one of the pictures stand a little on one and the next a little on the other side.

In order to use my box the pictures are first arranged back to back, as above described, or where transparent pictures are used singly and with alternate plain glass plates, and the whole series is connected by tapes, as heretofore described, and folded one on the top of the other. The pile thus formed is placed on the bottom of the box on that side of the partition G nearest to the eyeglasses, and the uppermost of the pictures is now raised and suspended from the wheel D in a vertical position by means of a rod, *g*, which is fastened to the tapes close over the first pair of pictures, and the wheel is now rotated in the direction of the arrow marked on it in Fig. 1. One picture after the other passes before the eyeglasses, and they collect on the outside of the partition G in a pile. When all the pictures have thus been passed over, the partition is raised or pulled out and the pile of pictures is pushed over to the side of that partition nearest to the eyeglasses. The partition is now replaced, and the uppermost picture is taken up and suspended from the wheel D, as above stated, and the wheel is again rotated. It will be found that the pictures arrange themselves so that first one side of the chain passes before the eyeglasses and then the other, so that with the same length of chain double the amount of pictures can be exhibited.

The changing of the pictures is greatly facilitated by the door in the bottom of the box, and if it is desired to put new pictures in altogether the whole pile can easily be taken out.

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

1. The employment of a skeleton wheel, D, substantially as described, for the purpose of bringing the pictures before the eyeglasses.

2. Placing the pictures C together, back to back, and so that one is upright when the other is upside down, substantially as and for the purpose specified.

3. In combination with the chain of pictures C, the arrangement of the sliding partition G and door F on the side and near to the bottom of the box A, substantially as and for the purpose set forth.

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Witnesses:

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