

(No Model.)

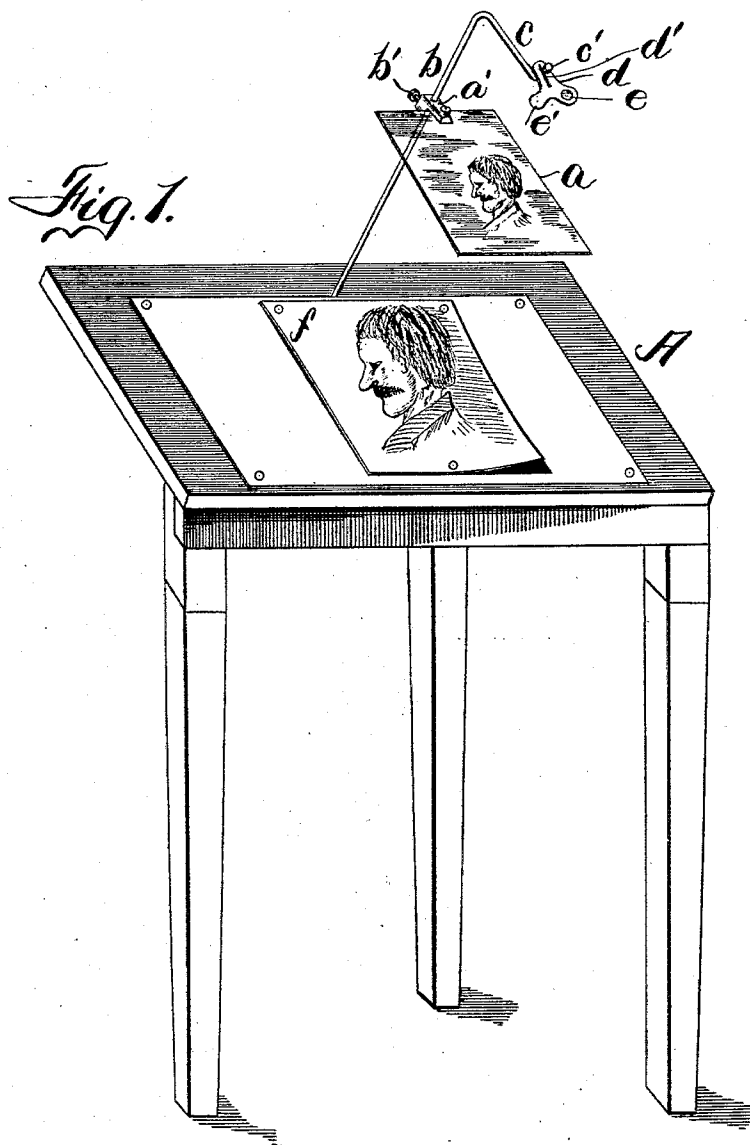
2 Sheets—Sheet 1.

L. D. LANGWORTHY.

PROCESS OF AND APPARATUS FOR COPYING PICTURES.

No. 561,797.

Patented June 9, 1896.



WITNESSES:

Charles H. Morrow,
Jessie E. Murray.

INVENTOR

Lynn D. Langworthy.

BY

Smith & Drusson

ATTORNEYS.

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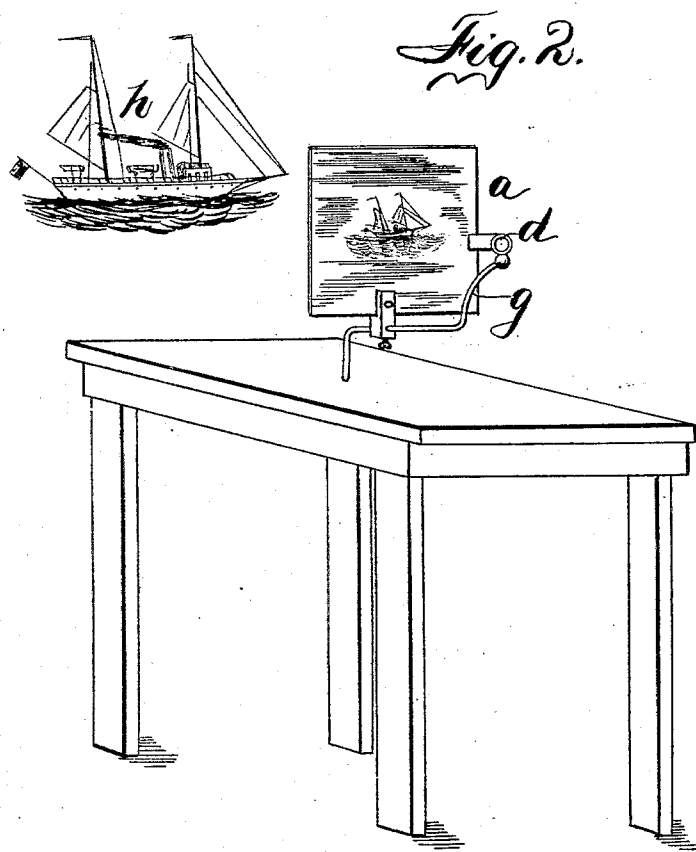
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UNITED STATES PATENT OFFICE.

LYNN D. LANGWORTHY, OF SYRACUSE, NEW YORK.

PROCESS OF AND APPARATUS FOR COPYING PICTURES.

SPECIFICATION forming part of Letters Patent No. 561,797, dated June 9, 1896.

Application filed January 27, 1896. Serial No. 576,948. (No model.)

To all whom it may concern:

Be it known that I, LYNN D. LANGWORTHY, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Processes of and Apparatus for Copying Pictures, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

10 This invention relates to a process of and apparatus for enlarging or diminishing the size of pictures.

My object is to produce a process of and means for easily, accurately, and quickly reproducing pictures or preparing pictures from nature, which may be reproduced either larger or smaller, adapted more particularly for newspaper-work, where rapidity as well as accuracy is desired. I am aware that many processes have heretofore been developed for doing this class of work, but they all entail a considerable time to develop the picture before it can be used and require still further time to dry before they are available for the printer, while in my invention the pictures are ready at once; and to that end my invention consists in the several new and novel steps and in the several new and novel features hereinafter described, and which are specifically set forth in the claims hereunto annexed.

In order to illustrate my process and the apparatus necessary to carry it into effect, I show, in—

35 Figure 1, a picture in process of construction; Fig. 2, a picture being prepared upon glass or similar transparent material from nature, from which picture upon glass the desired picture is prepared.

40 In order to put my process into practice, I first place a piece of ordinary glass over the picture which it is desired to reproduce. I then trace upon the glass over the picture the lines which are necessary to give configuration and expression to the picture. I then take the piece of glass *a*, secure it in a clamp *a'*, which is slidingly mounted upon the standard or bracket *b*, so that it may be raised or lowered to any point desired and then secure it at that position by the thumb-screw *b'*. The standard *b* is also adapted to be raised or lowered upon the table *A* in any ordinary

manner. The upper end of the standard *b* is provided with an arm *c*, having its end upturned, as shown at *c'*. Upon the arm *c* is 55 mounted a plate *d*, having a sight-hole *e*, adapted to be adjusted upon the upturned end *c'* of the arm *c* by means of the slot *d'*.

e is an opening in the plate *d*, through which the operator views the picture upon the glass 60 *a*, *e'* being the blind for the opposite eye. Within the opening *e*, if desired, may be a magnifying-glass. Directly under the plate *a* is a piece of drawing-paper *f*, upon which it is desired to place the desired picture. 65 The operator then looks through the opening or glass in the opening *e* through the plate *a*, which contains the lines of the desired picture, onto the drawing-paper *f*. He then with a pencil sketches the outlines of the picture upon the plate *a*, thereby making an exact reproduction upon the paper *f* of the picture upon the plate *a*. The picture upon the paper *f* may then be given to the printer for reproduction in the ordinary way. 75

In case I desire to reproduce a small picture from nature I mount the plate *d* upon a suitable arm *g* and mount the plate of glass *a* in front of it, as shown. I then look through the plate *d* through the glass and at the object *h*, adjusting it to or from the eye as may be desired to give the exact size desired. I then trace upon the plate *a* the outlines of the natural object, as shown in Fig. 2. When the plate *a* has been once prepared, I then reproduce it upon paper, as set forth and described in Fig. 1. 85

Having described my invention, what I claim, and desire to secure by Letters Patent, is— 90

1. The herein-described process for copying pictures, comprising the following steps: consisting first, in tracing the outlines upon glass or similar transparent material; second, placing the glass containing the transferred 95 picture between the eye and the paper upon which the picture is desired to be placed and lastly in tracing the picture on said paper.

2. The herein-described process of copying objects, comprising the following steps: 100 first, in mounting a piece of glass or similar transparent material between the eye of the operator and the object to be copied; second, in tracing upon said glass the outlines to give

configuration and expression to the object;
then placing the glass containing the traced
object between the eye and the paper upon
which the picture is desired to be placed, and
5 lastly, in tracing the picture on said paper.

3. The herein-described device for copying
pictures, comprising a base, a standard
mounted thereon and provided with means
for holding a plate and a plate having a sight-

hole before the aforesaid plate, and means to
for adjusting it as set forth.

In witness whereof I have hereunto set my
hand on this 22d day of January, 1896.

LYNN D. LANGWORTHY.

In presence of—

JESSIE E. MURRAY,
HOWARD P. DENISON.