

B. H. COFFEY.
SILHOUETTEGRAPH.
APPLICATION FILED SEPT. 18, 1907.

951,472.

Patented Mar. 8, 1910.

2 SHEETS—SHEET 1.

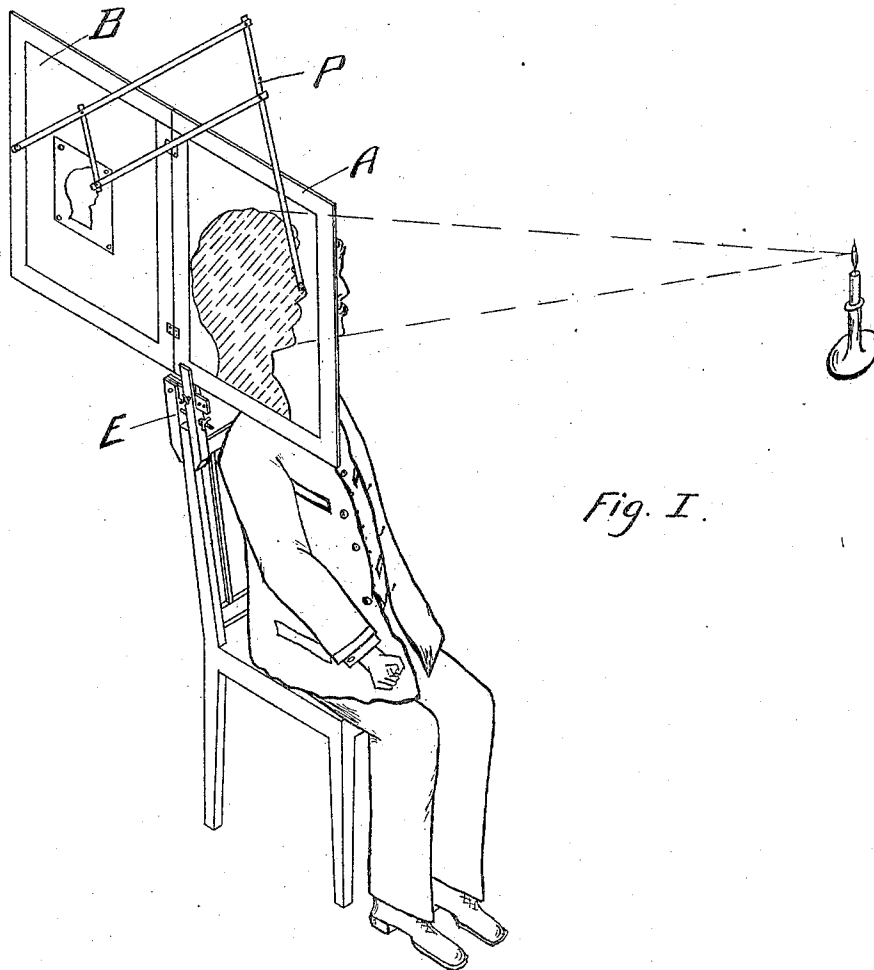


Fig. I.

WITNESSES
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INVENTOR
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2 SHEETS—SHEET 2.

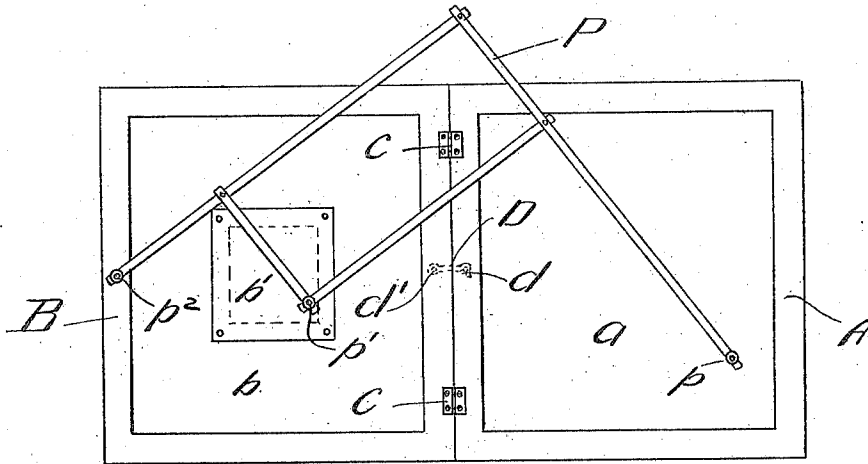


Fig. II.

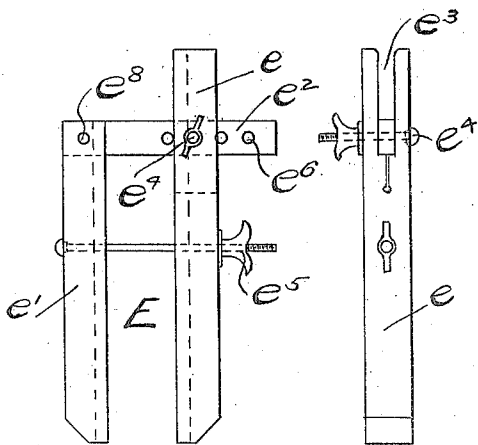


Fig. III.

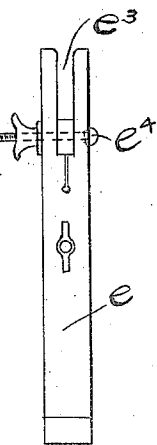


Fig. IV.



Fig. V.

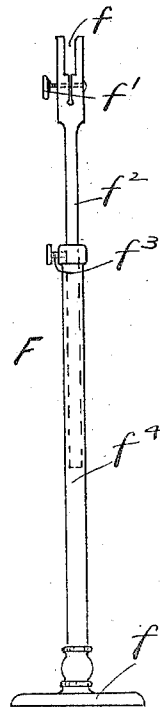


Fig. VI.

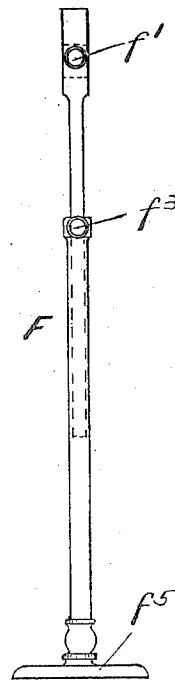


Fig. VII.

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SILHOUETTEGRAPH.

951,472.

Specification of Letters Patent.

Patented Mar. 8, 1910.

Application filed September 18, 1907. Serial No. 393,458.

To all whom it may concern:

Be it known that I, BARTON H. COFFEY, a citizen of the United States, residing in the city of Boston, county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Silhouettegraphs, of which the following is a specification.

My invention relates especially to a device by means of which anyone with a little practice can make faithful silhouettes.

My invention consists broadly in casting a sharp shadow of the person or object upon a translucent surface; and then by means of a pantograph or other means obtaining a reduced outline of the shadow upon paper. If this paper is black on one side, and white on the other; upon cutting out the reduced outline traced on the white side, a perfect silhouette is produced in black upon reversing, which may be mounted on white to bring out the effect.

In addition my invention consists of simple and inexpensive devices to accomplish this end, that can be readily operated by inexperienced persons.

I accomplish these results by the devices illustrated in the accompanying drawings in which—

Figure I. is an isometric view of the apparatus mounted on a chair, and in position to take the subject seated thereon. Fig. II. is an elevation of the frames holding the shadow surface, and the marking surface respectively, and upon which is mounted the pantograph. Fig. III. is an elevation of my clamping device for securing the frames, as to a chair. Figs. IV. and V. are other views of the clamping device. Fig. VI. is an elevation of a floor-stand clamp, for holding the silhouettegraph in position. Fig. VII. is another elevation of the same, at right angles to Fig. VI.

Similar letters refer to similar parts.

In Fig. II. A and B are ordinary frames grooved for panels, A containing a panel of some translucent material *a*, such as ground glass; and B, a panel *b*, of wood, or other substance suitable to mount thereon the paper *b'*, which may be secured to same by thumb tack or other suitable means. For convenience I prefer to hinge these two frames, as by the hinges C, and when open I

prevent them from closing by the hook D, on the side opposite the hinges, and shown in dotted lines. This hook is permanently secured to panel B, by the pin *d'* and engages with the pin *d*, which is integral with panel A. The pantograph P, turns on the pin *p*² secured to frame B, its marking point *p'* producing a reduced outline upon the paper *b'*, of the shadow, traced by the tracing-point *p*, upon the translucent panel *a*, of the frame A.

The clamping device E, Figs. III., IV., and V. consists of two jaws *e* and *e'*, held together by the bolt and wing-nut *e*⁵, and the piece *e*² pivoted to the jaws at *e*⁴ and *e*⁸. The holes *e*⁶ serve to adjust the jaws for varying widths of grip. The slot *e*³ in the end of jaw *e*, receives the lower edge of the silhouette frames, and upon tightening the bolt and wing-nut *e*⁴, the frames are clamped securely. It will be obvious that this clamp, gives both vertical, and horizontal adjustment to the frames. I also use a telescopic pipe, floor-stand; to support my frames of the usual form, as shown in Figs. VI. and VII. and do not intend that my invention, shall be limited by any particular form of supporting device. The floor-stand clamp F Figs. VI. and VII. consists of an upper piece having jaws to take the frames in the slot *f*, the frames are clamped tightly by the wing-nut and bolt *f'*. The lower part of this piece *f*² telescopes into the standard *f*⁴ as shown, and may be held at any elevation by the set screw *f*³, the base piece *f*⁵ supports the entire structure.

In operating the device, the subject is seated upon a chair to which the frames are clamped, with his profile parallel with the translucent surface; upon which his shadow is cast, by a candle or lamp. It is important in order to get a sharp shadow, that the light rays should be emitted from as small a point as possible, for which reason I prefer a candle or lamp. The operator then follows the outline of the shadow with a tracing-point of the pantograph, producing a reduced copy of the same upon the paper; which when cut out and mounted, forms a silhouette.

Having described my invention, I claim—

A silhouettegraph comprising a rigid translucent shadow receiving panel, a panel

adapted to hold paper while being marked,
a paper black on one side and capable of
showing a pencil mark on the other side,
and a pantograph fitted with a pencil for
5 transferring a homologous outline of the
shadow to the paper, substantially as de-
scribed.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

BARTON H. COFFEY.

Witnesses:

B. E. SWEET,
OTTO J. HIUTZE.