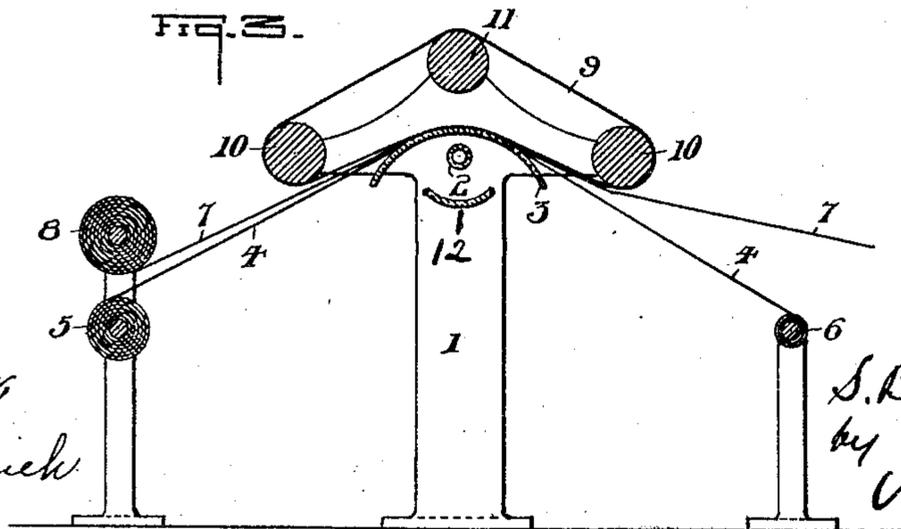
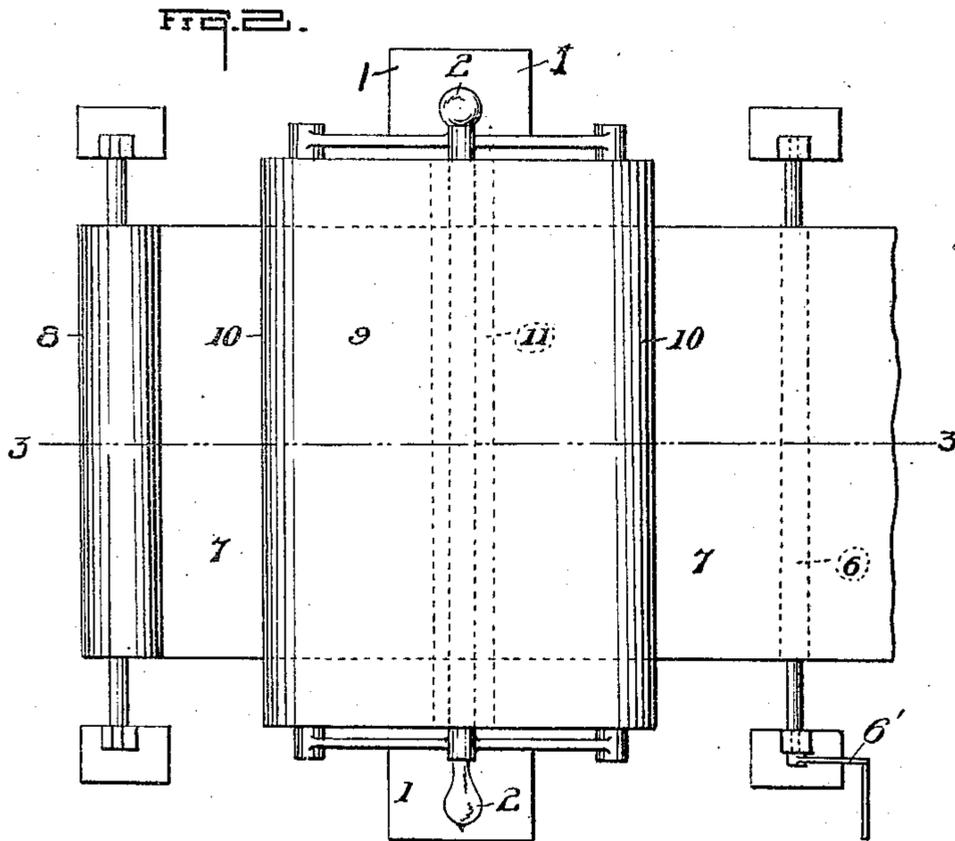
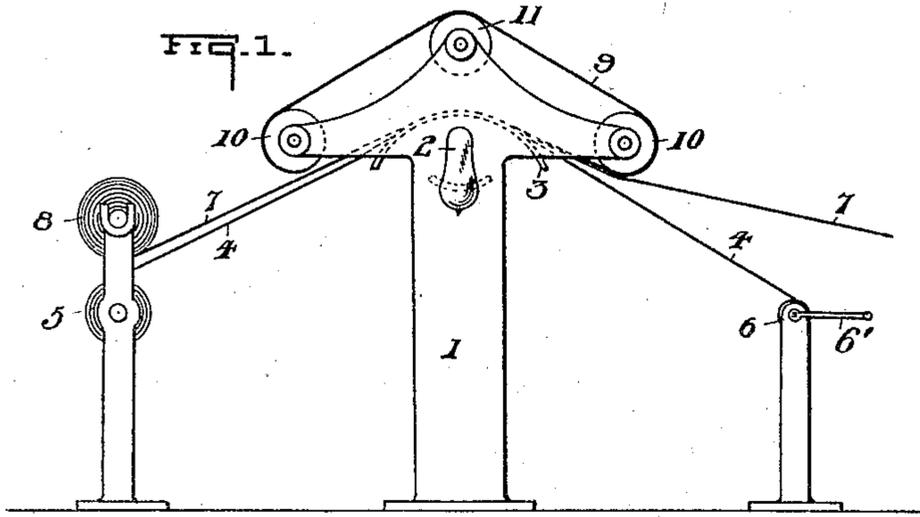


No. 847,034.

PATENTED MAR. 12, 1907.

S. B. WHINERY.  
BLUE PRINTING MACHINE.  
APPLICATION FILED SEPT. 24, 1903.



WITNESSES:

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# UNITED STATES PATENT OFFICE

SAMUEL BRENT WHINERY, OF PITTSBURG, PENNSYLVANIA.

## BLUE-PRINTING MACHINE.

No. 847,034.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed September 24, 1903. Serial No. 174,487.

*To all whom it may concern:*

Be it known that I, SAMUEL BRENT WHINERY, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented or discovered new and useful Improvements in Blue-Printing Machines, of which the following is a specification.

My invention relates to blue-printing machines, and more particularly to one whereby the photographic paper and the drawings to be copied are caused to travel and to be exposed during their travel to the action of a line of light.

It is the object of my invention to provide a blue-printing machine which can make prints of any length.

Referring to the drawings, Figure 1 is a side elevation of my invention, Fig. 2, a plan thereof, and Fig. 3 a vertical section thereof on the line 3 3 of Fig. 2.

On the drawings, 1 represents a pair of standards which supports fixedly the long horizontal mercury-vapor lamp 2. The standards also support above said lamp the arc-shaped or curved transparent printing-surface 3, which is preferably made of glass and has but limited extent transverse thereof. This surface is convex above and supports the drawings to be copied and the sensitized material on which the drawings are to be printed. The lamp is at the convex side of the printing-surface 3 and is parallel thereto.

The drawings may be passed over the surface 3 in any desired manner; but I have shown them as being on the strip 4 of paper or cloth, which is wound from the roller 5 onto the roller 6, provided with the hand-crank 6'. The sensitized strip 7 is drawn from the roll 8 and travels with the strip 4 between the latter and the belt 9, hereinafter described.

I provide the endless belt 9, which runs over the two end rollers 10 and the top roller 11, the rollers 10 having their under surfaces below the highest part of the surface 3, so as

to hold a large part of the sheets 4 and 7 smooth while they are passing the lamp 2. These rollers are supported in upward extensions of the standards 1. By turning the crank 6' the drawings and the sensitized material will be drawn over the surface 3, the belt 9 traveling with the said drawings and sensitized material owing to the friction between the belt and the said material.

In order to increase the strength of the light passing from the lamp 2 through the surface 3, I prefer to use the concave reflector 12 below the lamp.

The operation is as follows: The rollers 10 and 11 having been set in motion by any suitable power and the lamp 2 having been lighted, the drawing (represented by the strip 4) and the sensitized paper (represented by the strip 7) are drawn, the latter on the former, between the belt 9 and the glass surface 3. As the strips move over the surface 3 the lamp causes the drawings to be photographed or printed on the strip 7, which may be developed and fixed as the nature of the sensitive surface thereof may require.

Having described my invention, I claim—

1. In a blue-printing machine, a curved fixed transparent printing-surface consisting of a segment of a cylinder, means for causing the sensitized paper and the characters to be printed to travel transversely over the convex face of the printing-surface, and a lamp at the concave side of the printing-surface and parallel to the said surface.

2. In a printing-machine, a curved fixed transparent printing-surface, means for causing the sensitized paper and the characters to be printed to travel transversely over the convex face of the printing-surface and light-radiating means at the concave side of the printing-surface.

Signed at Pittsburg this 17th day of September, 1903.

SAMUEL BRENT WHINERY.

Witnesses:

F. N. BARBER,  
A. M. STEEN.