J. R. STEPHENSON.

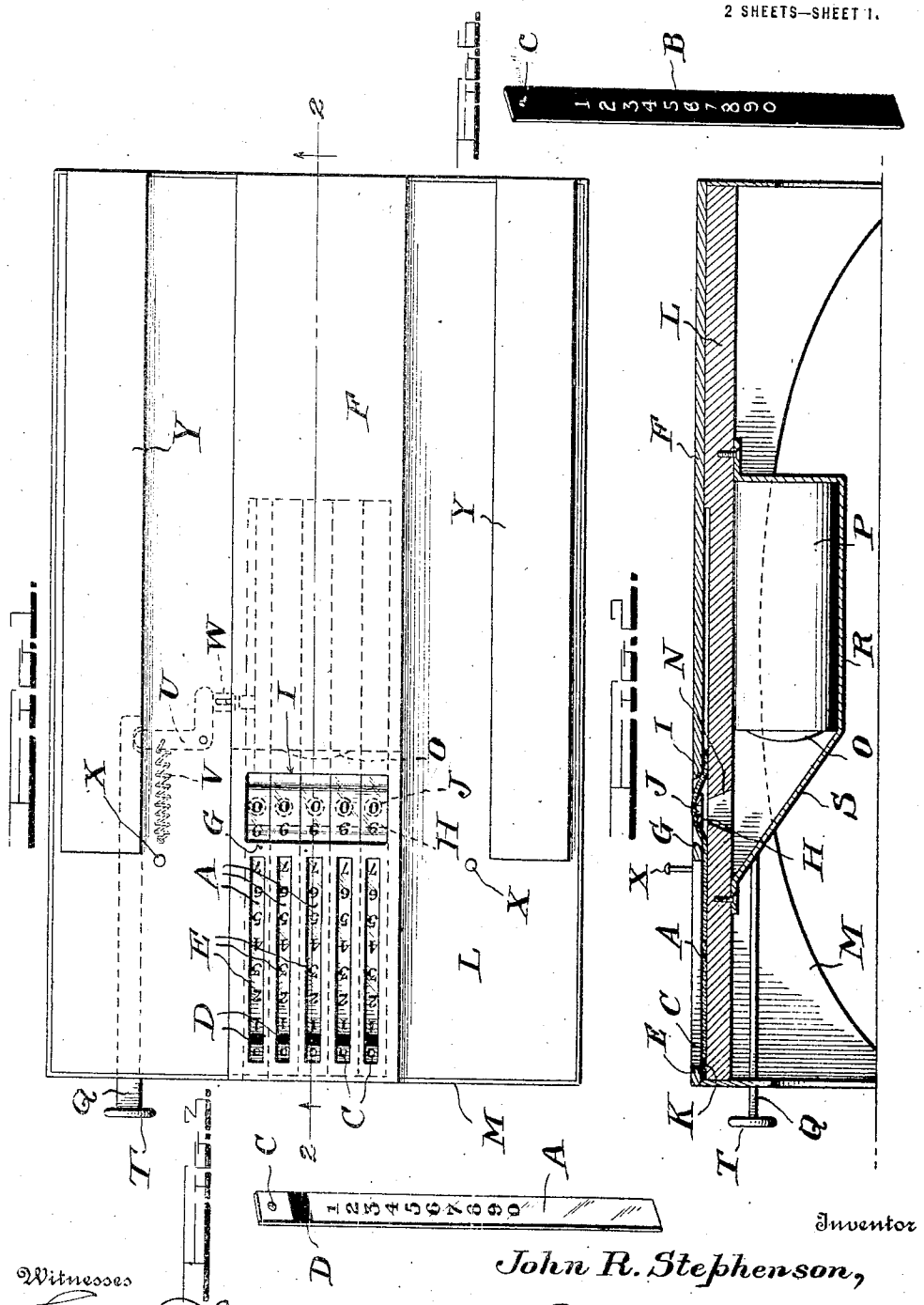
PLATE AND FILM NUMBERING MACHINE.

APPLICATION FILED DEC. 14, 1914.

1,159,126.

Patented Nov. 2, 1915.

2 SHEETS—SHEET 1.



Witnesses

Lester L. Sargent

Wm H. Gross

Inventor

John R. Stephenson,

By Jerry A. Mathews

Attorney

J. R. STEPHENSON.

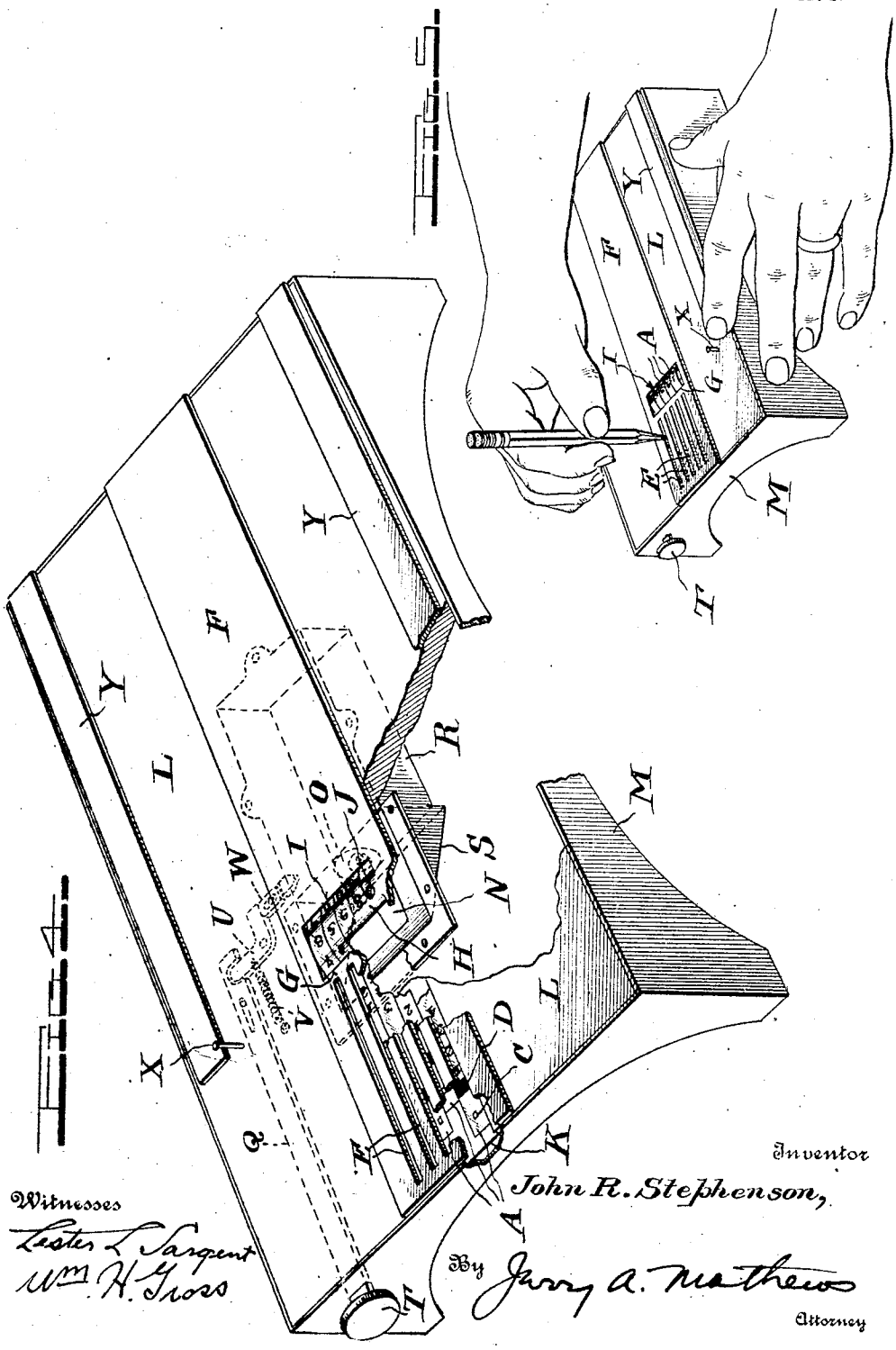
PLATE AND FILM NUMBERING MACHINE.

APPLICATION FILED DEC. 14, 1914.

1,159,126.

Patented Nov. 2, 1915.

2 SHEETS—SHEET 2.



Witnesses

Lester L. Sargent

Wm. H. Gross

Inventor

John R. Stephenson,

By Jerry A. Mathews

Attorney

UNITED STATES PATENT OFFICE.

JOHN R. STEPHENSON, OF PULLMAN, WASHINGTON.

PLATE AND FILM NUMBERING MACHINE.

1,159,126. Specification of Letters Patent. Patented Nov. 2, 1915.

Application filed December 14, 1914. Serial No. 877,112.

To all whom it may concern:

Be it known that I, JOHN R. STEPHENSON, a citizen of the United States, residing at Pullman, in the county of Whitman and State of Washington, have invented a new and useful Plate and Film Numbering Machine, of which the following is a specification.

The object of my invention is a machine adapted to print any desired number, or any combination of numbers, on the light-sensitive surface of a photographic dry plate or film (which after development is termed a negative), by the transmission of natural or artificial light through transparent figures surrounded by an opaque substance and placed in direct contact with the dry plate or film, or through a transparent substance on which are fixed opaque figures and placed in direct contact with the dry plate or film.

It is a further object of my invention to provide a machine of this character by means of which numbers not in consecutive order may be printed as readily as consecutive numbers.

It is a further object of my invention to provide a device that is easily operated, is not liable to get out of order, and by means of which the position of the numbers on the photograph is accurately gaged.

Under the present practice, which my invention is designed to supplant, the photographer is compelled to use the point of a knife blade, pin, or pencil for numbering, and as the operation must be accomplished in a dark room, he often scratches a valuable negative in such a way as to entirely spoil it. If a pencil is used the numbering is liable to disappear in the process of development or become illegible. Moreover, time is wasted where negatives are thus numbered because of having to work in a dark room.

It is the object of my invention to eliminate these inconveniences and provide a simple, quick, accurate and inexpensive mode of numbering negatives and films.

I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top plan view of my invention; Fig. 2 is a longitudinal section on line 2—2 of Fig. 1; Fig. 3 is a perspective view of my numbering strip having opaque numbers on a transparent body; Fig. 4 is a perspective view with parts broken away to show details of the container and bridge mechanism; Fig. 5 is a perspective view illustrating the mode of operating the numbering strips; Fig. 6 is a perspective view of a modified form of numbering strip having transparent numbers on an opaque body.

Like characters of reference indicate like parts throughout the several views.

In the accompanying drawings illustrative of my invention, two forms of numbering means are shown. I may employ either numbering strip A, of transparent material such as celluloid and bearing opaque numbers; or I may employ opaque numbering strip B, as shown in Fig. 6, having transparent numbers. My preferred arrangement of numerals on each strip is 1 to 9, consecutively, and 0, as shown. An orifice C is provided at one end of the numbering strips, as illustrated, for the insertion of a pointed actuating device. Numbering strip A is also provided with a protective opaque portion D, as shown in Fig. 3.

My numbering strips, A or B as the case may be, are slidably mounted in a grooved portion K, in a base or table member L, which in turn is supported by a suitable table-supporting means M, which preferably is a sheet metal member of the form illustrated in Fig. 4. An aperture N is provided in table member L for the passage of light to the numbering means.

Mounted on table member L is a container or guide member F for the numbering strips. It is provided with a plurality of longitudinal slots E; a transverse slot G positioned over aperture N in table member L; a corresponding transverse slot I spaced apart from it; a bridge portion H on either side of which are slots G and I; and orifices J in bridge portion H, these orifices being

positioned in alinement with longitudinal slots E.

My preferred form of lighting means comprises an electric light O, positioned to throw light on a reflector S positioned beneath the aperture N in table member L for the reflection of light to the numbering means. I preferably provide a housing R of sheet metal having a small dry cell P electrically connected with electric light O.

Suitable light operating means Q are also provided for switching on the light, preferably comprising switch member T, bell crank U, bell crank spring V and link means W, as shown—partially in dotted lines—in Figs. 1 and 4. While this is my preferred light operating means, it will be understood that any suitable light operating means may be employed, without departing from my invention essentially.

Mounted on table L, I provide suitable positioning members X and Y adapted to hold the negatives to be numbered in proper position for the purpose.

Grooved portion K of table member L corresponds in depth with the thickness of the numbering strips employed, and is twice their length, to permit of their free movement.

In operation, the point of a pencil or other pointed device is inserted in orifice C of a numbering strip, and moved along in slot E longitudinally, the opposite end of the numbering strip extending up through transverse slot G, over bridge portion H and down through transverse slot I into grooved portion K of table member L. In this manner the desired numeral is brought over the orifice J in bridge portion H; other strips are then brought to the desired position in a similar manner, thus producing the desired number over the bridge portion H. In the actual printing operation, the dry plate (negative) or film to be numbered is placed emulsion side downward, in contact with the numbers on the numbering strips over bridge portion H where they appear over orifices J, the edge of the photograph being held against positioning members X, which may be merely posts as illustrated. The mode of operating the numbering strips is illustrated in Fig. 5. When the photographic plate (negative) or film is in place it is held there firmly with the right hand. Switch member T is pressed inward by the forefinger of the left hand, thus turning on the electric light, and after a short interval is released. During this interval light is reflected by reflector member S through orifices J in bridge portion H and thus through that portion of the numbering strips disposed over orifices J, to the light-sensitive emulsion of the dry plate or film. If transparent numbering strips A having opaque figures are employed, small opaque circles with transparent numerals appearing therein will be plainly legible when the dry plate or film is developed; and if opaque numbering strips B having transparent numerals are employed, opaque figures will be produced on the dry plate or film.

The accompanying drawings illustrate the preferred form of my invention, but it is to be understood that variations in the lighting means, either natural or artificial, and in the light-operating mechanism are within the contemplation of my invention.

What I claim is:

1. Table-supporting means; a table member having a grooved portion and a slotted portion adjacent to the grooved portion; one or more strips having numerals the numerals and body of the strip differing in perviousness to light said strips being slidably mounted in the grooved portion of the table member; a strip guiding member positioned over the grooved portion of the table member and having longitudinal slotted portions corresponding in number and position with the slidable strips, spaced transverse slotted portions and intermediate light-admitting orificed portions positioned over the slotted portion of the table member; a reflecting member positioned to reflect light through the orifices; and manually operated electric lighting means positioned to throw light on the reflecting member, substantially as set forth.

2. Table supporting means; a table member having a grooved portion and a slotted portion adjacent to the grooved portion; one or more opaque strips having transparent numerals said strips being slidably mounted in the grooved portion of the table member; a strip guiding member positioned over the grooved portion of the table member and having longitudinal slotted portions corresponding in number and position with the slidable strips, spaced transverse slotted portions and intermediate light-admitting orifices positioned over the slotted portion of the table member; a reflecting member positioned to reflect light through the orificed portions; and manually operated electric lighting means positioned to throw light on the reflecting member, substantially as set forth.

3. In a plate and film numbering machine, means for containing and guiding one or more non-coiling strips; non-coiling, relatively short strips having thereon numerals 1 to 9 and 0, the numerals and body portions of the strips differing in permeableness to light; orificed portions for the admission of light through alined numerals on the strips; means for retaining the slidable strips in position over said light-admission portions, said means having slotted portions to admit

of actuating the strips; and means for admitting light through the orifices.

4. Longitudinally-grooved means for supporting one or more strips; longitudinally slidable non-coiling, relatively short strips having thereon numerals 1 to 9 and 0, the numerals and body portions of the strips differing in permeableness to light; orificed, light-admission portions positioned to admit light through alined numerals on the strips, means for retaining the slidable strips in position over said light admission portions, said means having longitudinally slotted portions to admit of actuating the strips, and means for reflecting light through the orifices.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

JOHN R. STEPHENSON.

Witnesses:

H. M. BECK,

J. B. SANBORN.