

(No Model.)

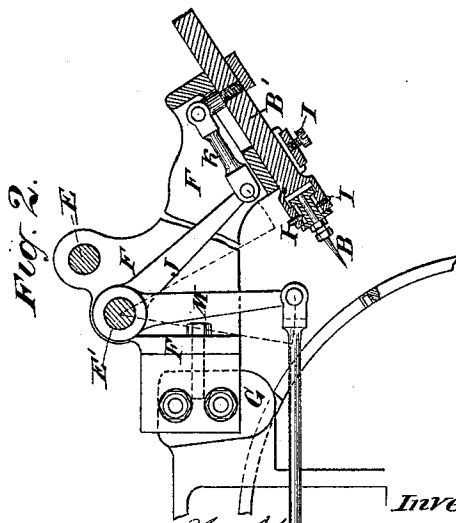
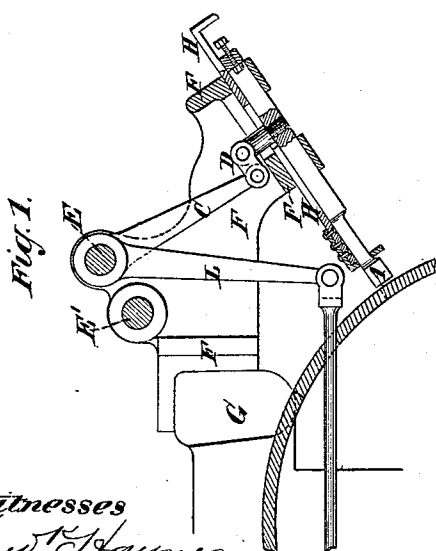
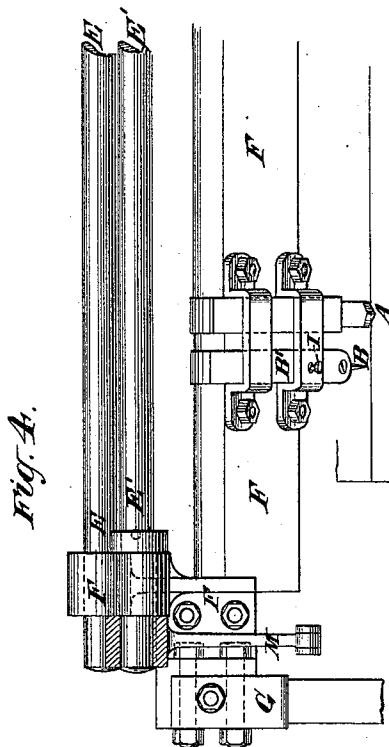
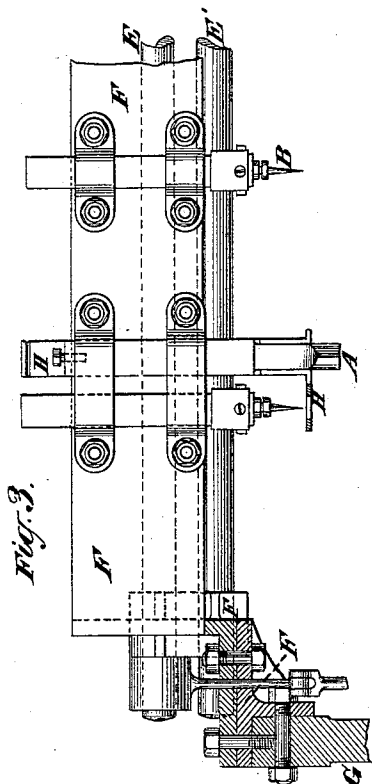
2 Sheets—Sheet 1.

T. M. VIEILLEMARD.

REGISTERING DEVICE FOR PRINTING MACHINES.

No. 250,304.

Patented Nov. 29, 1881.



Witnesses
J. W. Hayner
Ed. Glattmayer

Inventor
T. M. Vieillemard
by his Attorneys
Brown & Brown

(No Model.)

2 Sheets—Sheet 2.

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Fig 5

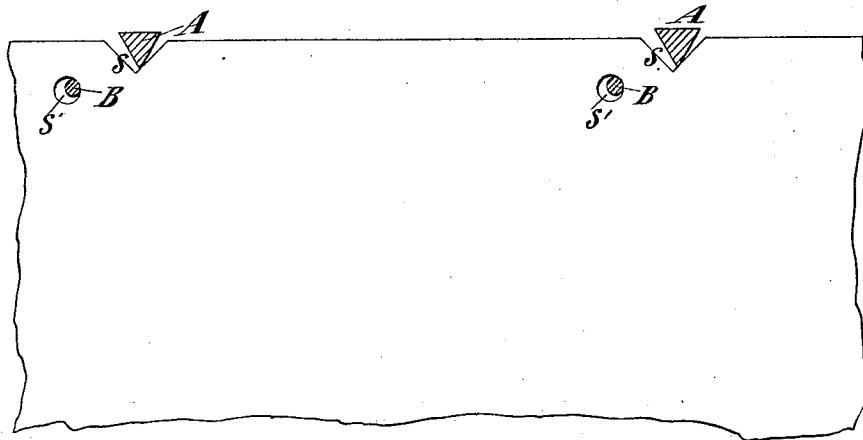
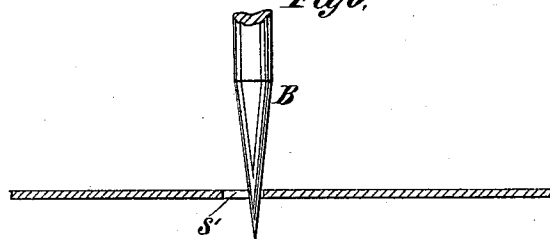


Fig 6



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UNITED STATES PATENT OFFICE.

THOMAS M. VIEILLEMARD, OF PARIS, FRANCE.

REGISTERING DEVICE FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 250,304, dated November 29, 1881.

Application filed December 29, 1880. (No model.) Patented in France May 18, 1880.

To all whom it may concern :

Be it known that I, THOMAS MAX VIEILLEMARD, of Paris, in the Republic of France, have invented certain Improvements in Registering Devices for Printing-Machines, of which the following is a specification.

My invention relates to an apparatus intended to register automatically the sheets in printing-machines. In the printing of chromolithographic impressions—for example, when there are many colors, and consequently as many printings as colors—it is absolutely necessary, in order to obtain a good result, that the sheets should register perfectly upon the cylinder—that is to say, they should always occupy exactly the same position thereon; yet whatever care may be taken by the pressman or feeder it is very difficult to obtain an absolutely perfect register.

By my invention the sheet is registered as in all printing-machines, only in place of putting the sheet by hand on needles or points I employ mechanism represented in the accompanying drawings, and hereinafter described, which is applicable to all printing-machines.

Figures 1 and 2 in the drawings are transverse vertical sections of the mechanism. Fig. 3 is a face view. Fig. 4 is an elevation corresponding with the section Fig. 2. Fig. 5 is a plan of one edge portion of a sheet of paper and a sectional view of the devices which fix its position, and Fig. 6 is a sectional view of a portion of the sheet and an elevation of one of said devices.

In my machine the sheet, in the edge of which have been mechanically made some triangular notches, S, (see Fig. 5,) is pushed by hand against stop-gages A, of triangular section, of which the position corresponds to the notches, and the number of which may be varied according to the dimensions of the cylinder. By this means there is obtained very nearly the same position of the sheet every time it is placed on the cylinder. To assure, then, definitely its place in an absolutely precise manner, I make use of pins B, moved mechanically like the stop-gages A, and which penetrate holes S' previously pierced in the sheet, in number and position corresponding with the said pins, as seen in Figs. 5 and 6. When the sheet has its notched edges set against

the gages A the pins B, of which the points are tapered, enter into the holes of the sheet, obliging it by this act to take very exactly the place which it should occupy on the cylinder. In Fig. 5 the pins B are shown as bearing against the right-hand sides or edges of the holes S', and when the pins are thrust in their tapered points will cause the sheet to move very slightly toward the right, and thus they will accurately fix its position. At this moment the presser-feet operate to secure the sheet to the cylinder, and before the cylinder begins to rotate the pins B are raised again.

From the preceding description it may be easily understood that all that is required of the pressman or feeder is constant attention, for he can very easily and quickly place the sheet against the gages A, and when it is there the pins B will automatically rectify its position.

Each gage A is mechanically operated by an arm, C, connected with it by a link, D, and keyed upon a rock-shaft, E, which works in bearings F, mounted upon the frame G of the machine.

A presser-foot, H, operated by its own weight, placed behind each gage A, holds the sheet during the descent of the pins B. When the gages A descend the presser-feet H descend by their weight and hold the sheet against the cylinder with a light pressure, which is not sufficient to prevent the pins B from moving the sheet laterally under said feet. The outer ends of the presser-feet H project over the outer ends of the gages A, and when the gages are raised the presser-feet are raised with them.

The stocks B', which hold the pins B, are furnished with adjusting-screws I I on all sides, in order to enable the position of the pins to be accurately adjusted. The pins B are operated by arms J, keyed upon a rock-shaft, E', parallel with the rock-shaft E, and supported in the same manner. These arms J are connected with the pin-stocks B' by means of links or connecting-rods K. The two rock-shafts E E' are furnished with arms L M, one for each, which are connected with rods which derive motion from the motion of the press-bed, or by a cam placed upon the main shaft of the machine, such motion being timed to raise and lower the gages and the pins at the proper time.

Other means than those described may be used to adjust very exactly the position of the pins B.

I claim—

- 5 1. In a printing - press, the combination of the tapered pins B, their stocks B', the screws I, for securing said pins in said stocks and adjusting them transversely, and mechanism, substantially as described, for reciprocating
10 said pins and stocks, as herein set forth.
2. In a printing - press, the combination of

the tapered pins B and their stocks B', the gages A, the presser - feet H, adapted to be raised by said gages in their upward movement, and mechanism, substantially as de- 15 scribed, for reciprocating said pins and stocks and said gages, as herein set forth.

THOMAS MAX VIEILLEMARD.

Witnesses:

G. NOUVELLE,
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