

S. WHITLOCK.
SHEET GAGE FOR PRINTING MACHINES.

No. 551,607.

Patented Dec. 17, 1895.

Fig. 1

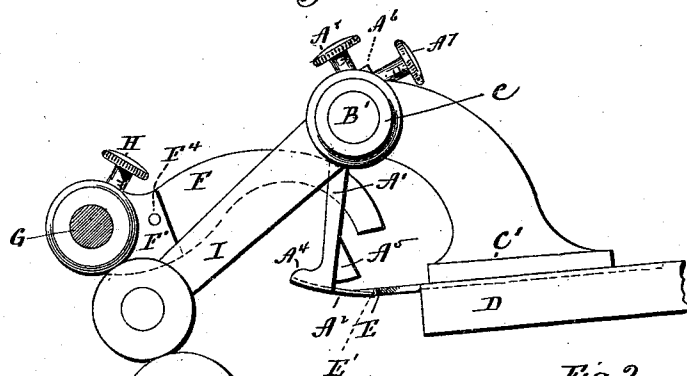
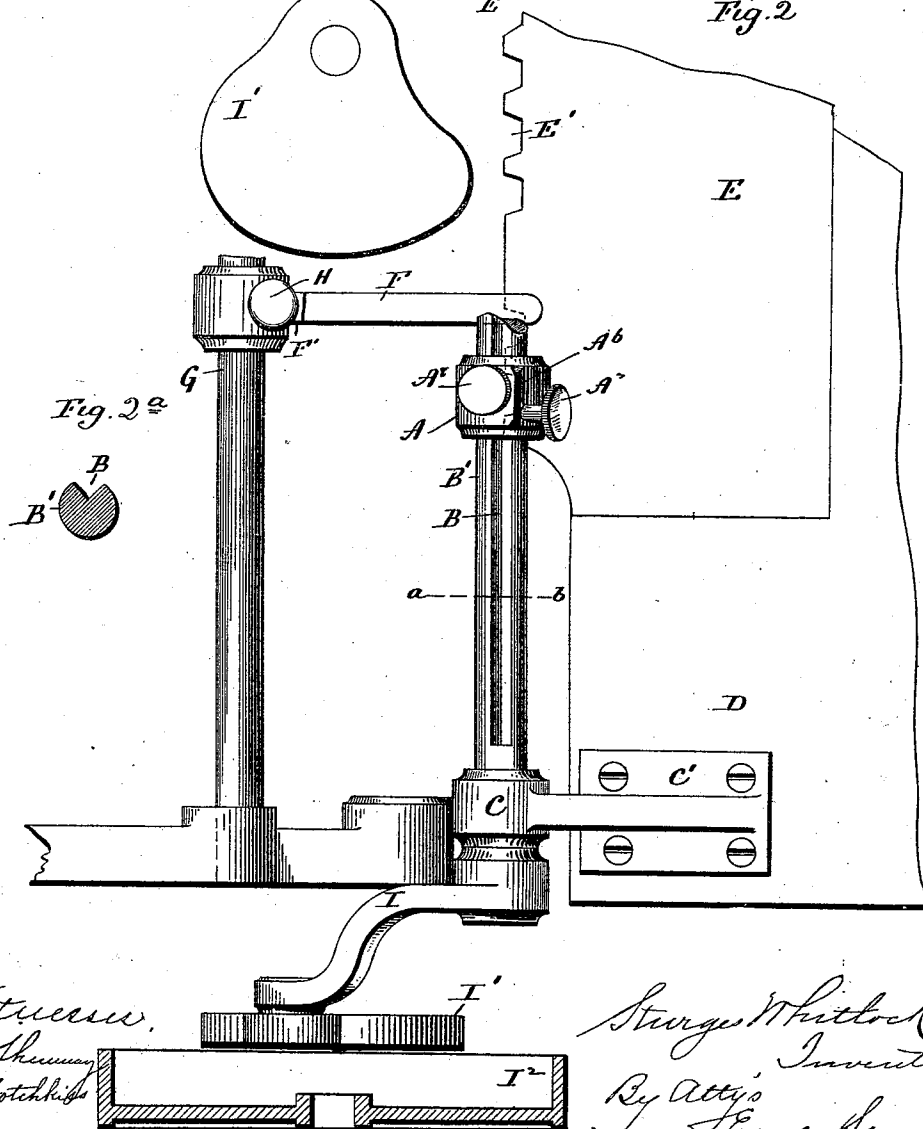


Fig. 2



Witness.
J. H. Chesney
A. S. Hotchkiss

Sturge Whitlock
Inventor
By Atty's
Earle Seymour

(No Model.)

2 Sheets—Sheet 2.

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Fig. 6

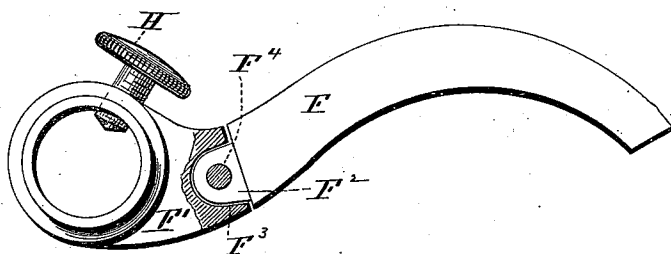


Fig. 3

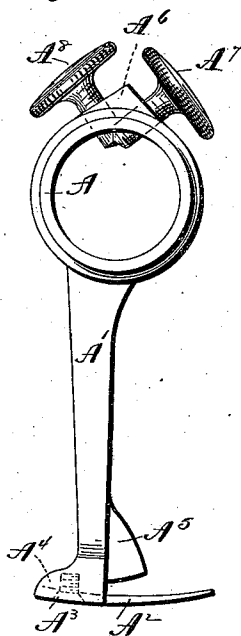


Fig. 4

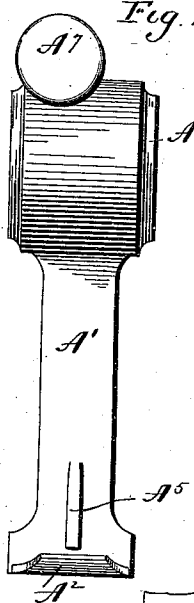
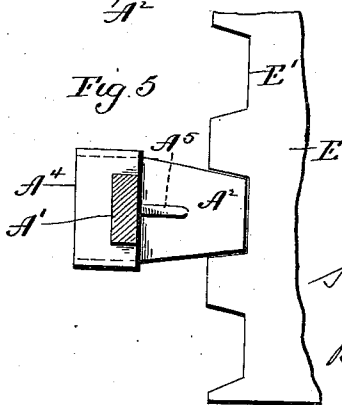


Fig. 5



Witnesses
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Stranger Whitlock
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UNITED STATES PATENT OFFICE.

STURGES WHITLOCK, OF SHELTON, ASSIGNOR TO THE WHITLOCK MACHINE COMPANY, OF DERBY, CONNECTICUT.

SHEET-GAGE FOR PRINTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 551,607, dated December 17, 1895.

Application filed March 14, 1895. Serial No. 541,747. (No model.)

To all whom it may concern:

Be it known that I, STURGES WHITLOCK, of Shelton, in the county of Fairfield and State of Connecticut, have invented a new Improvement in Registering Devices for Printing-Presses; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation showing one of my improved gages and one of my improved jointed drop-fingers; Fig. 2, a broken plan view of the registering devices of a printing-press provided with my invention; Fig. 2^a, a sectional view on the line *ab* of the feed-gage rock-shaft; Fig. 3, a detached view in side elevation of a feed-gage constructed in accordance with my invention; Fig. 4, a front view thereof; Fig. 5, a broken view partly in plan and partly in section and showing the entrance of the bowed tongue of my feed-gage into one of the notches in my feed-plate, the arm of the gage being broken away; Fig. 6, a view partly in section and partly in elevation of one form which my improved jointed drop-finger may assume.

My invention relates to an improvement in the registering devices of printing-presses, the object being to produce simple and effective means for registering sheets of paper as they are fed into a printing-press from the feed-table into position to be taken by the gripping-fingers of the impression-cylinder, and to adapt such devices to be adjusted as may be required to increase or decrease the projection of the fed edges of the sheets beyond the table.

With these ends in view my invention consists in the combination, with a feed-gage, of a rock-shaft on which it is adjustably mounted, and a notched feed-plate with which the tongue at the lower edge of the gage co-operates.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described and pointed out in the claims.

In carrying out my invention, as herein

shown, I employ a feed-gage, comprising a horizontal sleeve or collar A, an arm A' formed integral with and depending from the said collar, a bowed tongue A², rigidly secured at its inner end by a screw A³ to a lug A⁴, formed integral with the lower end of the arm A', and a vertically-arranged fin-like guard A⁵, formed integral with the arm A' upon the outer face and near the lower end thereof, having its lower end beveled to guide the paper under it, so that the edge of the paper will abut against the outer face of the extreme lower end of the arm, and located centrally over the outer end of the tongue A², which projects considerably beyond it. The collar A is constructed upon its upper face with a lug or reinforce A⁶, adapting it to receive two adjusting-screws A⁷ and A⁸, located at a right angle to each other and respectively impinging against the opposite walls of a longitudinal V-shaped groove B, formed in the rock-shaft B'.

It is apparent that by adjusting the screws A⁷ and A⁸ the entire feed-gage may be adjusted through a short arc upon the rock-shaft.

I may say here that the parts I have spoken of as being made integral with each other are not necessarily so made, but only by preference.

The rock-shaft B, I may here explain, is journaled at its ends in the arms *c* of brackets *c'*, secured to the feed-table D and extending inward beyond the same; but only one of these brackets is shown.

The feed-table is provided with a feed-plate E, which projects beyond its inner edge. The projecting inner edge of the said feed-plate is constructed with a series of tapering notches E', each conforming in shape to the shape of the tapering outer end of the tongue A² of the feed-gage, which is mounted on the rock-shaft B' in position for the entrance of its tongue into one of the said notches. The position of the feed-gage, with respect to the notched inner edge of the feed-plate, determines and regulates the extent to which the sheets placed upon the feed-table will project beyond the edge of the feed-plate, for it will be understood that the sheets are pushed inward until their fed edges strike the outer face of the extreme lower end of the depend-

ing arm of the gage at a point between the guard and tongue thereof. It will be clear, also, that as long as there is any extension of the tongue of the gage into its notch in the feed-plate the sheets must be fed correctly, for they then have no chance of passing between the tongue and plate and curling up or getting into positions where they will not feed. It does not matter, therefore, so far as the proper feeding of the sheets is concerned, whether the tongue is just entered into its notch or partly entered thereinto, and therefore the gage may be adjusted back and forth by means of its screws within the limits set by the length or depth of its notch. By thus notching the feed-plate, as described, I am enabled to dispense with providing the feed-gage with an adjusting-plate against which the sheets are fed, and which is moved back and forth to regulate the projection of the sheets beyond the feed-plate.

Although I have shown and described only one feed-gage, it will be understood that several are employed and that they will be shifted on the rock-shaft B' from one notch in the plate E to another notch therein, according to the width of the sheets of paper to be printed. To provide for shifting the gages, as described, the plate E is notched throughout its length.

For preventing the paper from being displaced on the feed-plate when the feed-gages retreat or are swung away therefrom by the rocking movement of the rock-shaft B', I by preference employ two drop-fingers; but I have thought it sufficient, for the purpose of disclosing my invention, to show only one of them.

I make each finger in two sections F and F', and joint them together with just enough play so that the outer section F has a slight gravity movement, adapting it to drop upon the paper and hold the same down even if the surface upon which it rests is not quite uniform. As herein shown, the section F which forms the finger proper is constructed at its inner end with a rounded lug F², fitting into a corresponding socket F³, formed in the section F'. A pin F⁴ passing through the said shoulder and socket holds the two parts together. The two drop-fingers are mounted upon a drop-finger rock-shaft G, to which they are secured by screws H.

The drop-finger rock-shaft G, just mentioned, is arranged parallel with the feed-gage rock-shaft B'. These shafts may be actuated in any desired manner. As herein shown, the feed-gage rock-shaft B' is provided at one end with a lever I, which rides upon and is actuated by a cam I', carried by the inner face of a large gear-wheel I².

The means employed for operating the drop-

finger rock-shaft are not shown, but they may be of any suitable description.

I would have it understood that I do not necessarily employ such jointed drop-fingers in connection with my improved feed-gages and notched feed-plate, though they are well adapted to co-operate therewith.

It is apparent that in carrying out my invention some changes in the construction shown and described may be made, and I would have it understood that I do not limit myself to the same, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. In registering devices for printing-presses, the combination with a feed-plate having its inner edge notched, of a feed-gage provided with a tongue adapted to enter a notch in the plate, and a shaft upon which the said gage is mounted, and upon which it is adjustable to vary the extension of its tongue into the said notch, substantially as described.

2. In a registering device for printing presses, the combination with a feed-plate having its inner edge notched, of a feed-gage constructed with a fixed guard and with a tongue adapted to extend into a notch in the plate, and a rock-shaft upon which the feed-gage is mounted, and upon which it is adapted to be adjusted to vary the extension of its tongue into the said notch, substantially as described.

3. In a printing-press, the combination with a rock-shaft constructed with a longitudinal V-shaped groove, of a feed-gage consisting of a horizontally arranged sleeve to receive the said shaft on which the gage is mounted, a fixed arm depending from the said sleeve, a bowed tongue located at the lower end of the arm, a fixed fin-like guard located upon the outer face of the arm at the lower end thereof, at a point just above the tongue, and designed to guide the paper under it, and two screws mounted in inclined positions with respect to each other in the sleeve, impinging upon the respective walls of the said slot, and employed to adjust the gage forward or back upon the shaft in accordance with the feeding of the paper, substantially as described.

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

STURGES WHITLOCK.

Witnesses:

JULIUS G. DAY,
BESSIE R. HASSARD.