

(No Model.)

H. LA FOUNTAIN.

COUNTING ATTACHMENT FOR PRINTING PRESSES.

No. 521,318.

Patented June 12, 1894.

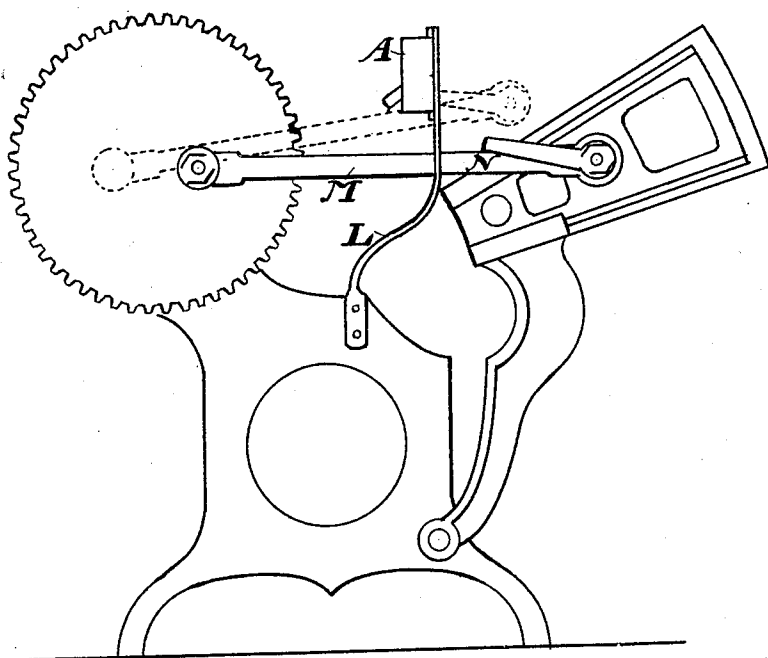


Fig. 1.

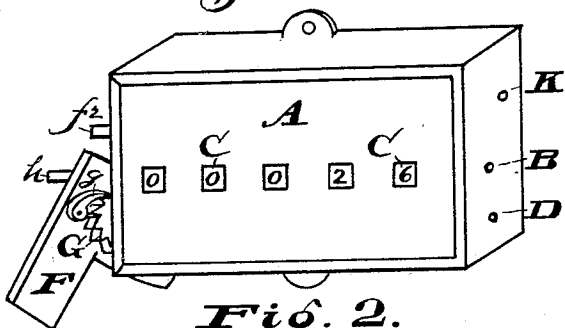


Fig. 2.

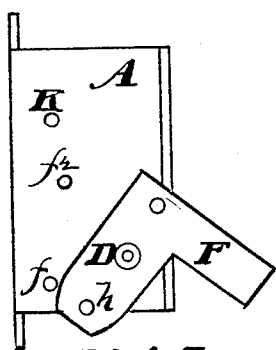


Fig. 5.

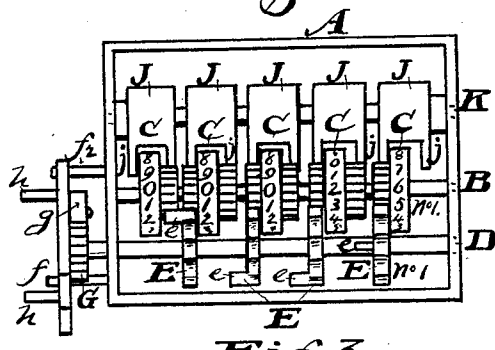


Fig. 3.

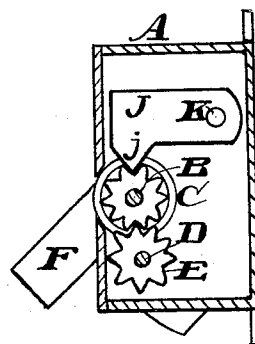


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

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COUNTING ATTACHMENT FOR PRINTING-PRESSES.

SPECIFICATION forming part of Letters Patent No. 521,318, dated June 12, 1894.

Application filed January 15, 1894. Serial No. 497,008. (No model.)

To all whom it may concern:

Be it known that I, HENRY LA FOUNTAIN, a citizen of the United States, residing at Cleveland, Cuyahoga county, and State of Ohio, have invented a new and useful Improvement in Counting Attachments for Printing-Presses, of which the following is a specification.

This invention relates to a counting attachment for printing presses, and has for its object to provide for a throw-off for the counter to work simultaneously and in conjunction with the impression throw-off, and consists in the peculiar constructions and combinations substantially as hereinafter described and pointed out in the claim.

In the accompanying drawings,—Figure 1 is a partial representation of a press in outline, showing location of and means for operating my new counting device. Fig. 2 is a perspective view of my counting device. Fig. 3 is a front elevation of the same, with the front plate removed, showing the interior mechanism. Fig. 4 is a cross-section of the same. Fig. 5 is an end elevation showing the tilting, weighted operating lever.

A represents a box of suitable size and proportions to contain the working parts of the device.

B is a rod supported in the ends of said box, upon which are loosely placed the counting wheels C, which may be five in number. Each wheel is provided with gear by which they are turned. Beneath said counting wheels is located a shaft D also journaled in the ends of the box, and which carries loosely gear wheels E, except No. 1, which is keyed fast onto the shaft, and constitutes the operating gear wheel, and which meshes with the gear of counting wheel No. 1, the other gears E meshing with the counting wheels above them respectively. Said gears E are provided with lips *e* at one side, which are designed for engaging once in each rotation with the gear of the next adjacent counting gear wheel, whereby said counting wheels are successively turned. Upon the protruding end of said shaft D, at the left hand end of the box is loosely attached an oscillating weighted lever F. The lower end of said lever normally rests against a stop pin *f*, and its movements are limited by a second upper stop pin

*f*². Upon the shaft next to said lever is attached a ratchet pinion G, and to the lever F is pivotally attached a pawl *g*, which engages with said pinion to turn the same by the backward movements of the lever, when freed, the lever falls by its own gravity.

Two pins *h, h*, are provided on the lever F, one above and one below the fulcrum, the purpose of which will be explained later on.

J J are locking blocks pivotally supported on a rod K in the upper back part of the box, their forward and moving ends are provided each with two tri-angular teeth *j, j*, which straddle the counting wheel, above which they are located, and engage with the teeth of the said counting wheel gears, and are designed to hold said wheels from turning; the movements of the counting wheels, however, lift their respective blocks when they are turned by their respective operating gears E.

This counting device may be attached to and supported on a press by means of an arm or bracket L fastened to the frame of the press, as seen in Fig. 1, where it may be operated by the movements of the pitman M, which moves the impression plate of the press.

N is an arm attached to the journal of the cam shaft of the press, which, as the said pitman moves forward, strikes against the lower pin *h* on the lever F and pushes the lever causing the counter to register said movement. Should the operator of the press desire to throw-off the impression plate, he turns the cam shaft for that purpose, and in so doing he also turns the said arm N out of line so it cannot strike the pin *h* as the pitman moves forward, and thus no count is made, therefore counts are only made when an impression is made by the press. Should the cam shaft of the press be located at the other end of the pitman, then the said arm N may be attached to the forward end of the pitman, and so adjusted as to strike the upper pin *h*, and the same results are attained with the counter.

Having described my invention, I claim—

In a counting attachment for printing presses, the counting mechanism consisting of box, A, shaft B journaled in said box, counting wheels C C mounted on said shaft and provided with gears, shaft D journaled in the box beneath the counting wheels, gears

E mounted on said shaft D and meshing with the gears of said counting wheels, each of said gears E having a lip *e*, locking blocks J J pivotally mounted on a shaft K above
5 said counting wheels C, said blocks having teeth *j, j*, engaging with the teeth of the counting wheel gears; weighted lever F loosely mounted on the end of shaft D, ratchet pinion G; also mounted on shaft D, pawl *g*
10 attached to lever F and engaging with said

ratchet pinion, stop pins *f f*² on the end of box A, push pins *h, h*, on said lever F, all constructed and combined to operate in conjunction with the throw-off mechanism of the press, substantially as described and for the
15 purpose set forth.

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Witnesses:

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