

(No Model.)

J. L. FIRM.

ANTI-OFFSET MECHANISM FOR FOLDING MACHINES.

No. 584,140.

Patented June 8, 1897.

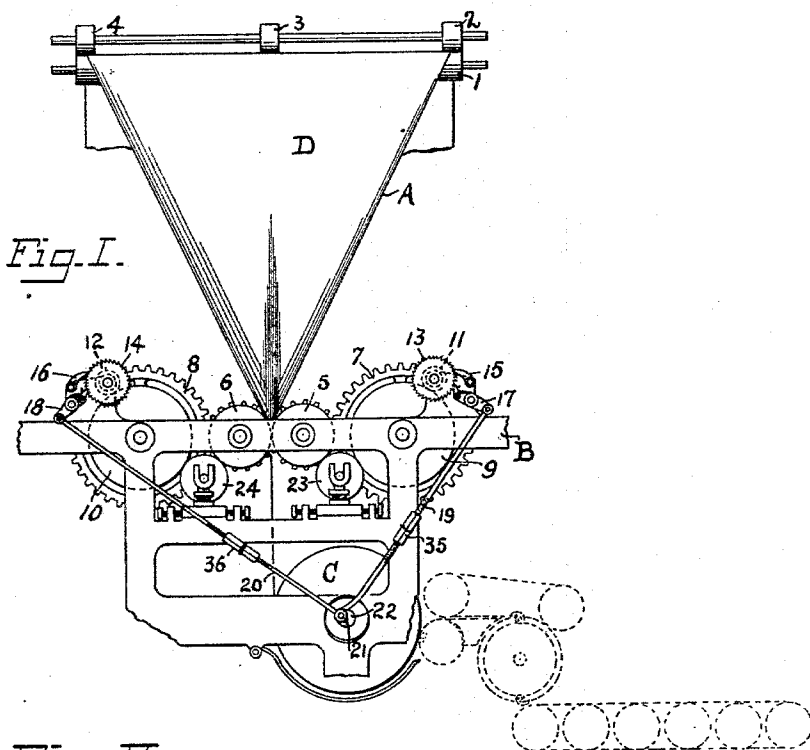
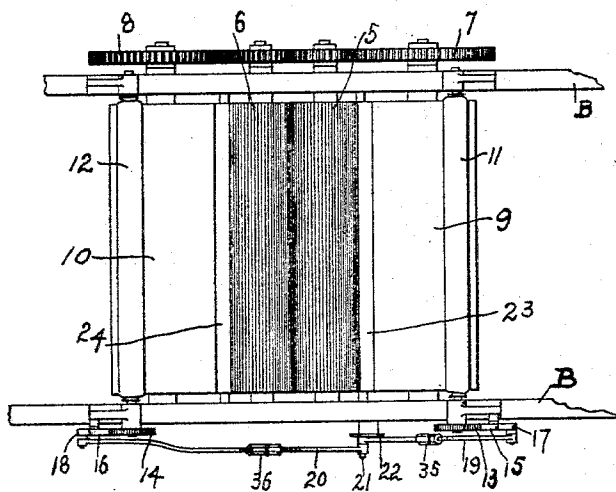


Fig. II.



Witnesses
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ANTI-OFFSET MECHANISM FOR FOLDING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 584,140, dated June 8, 1897.

Application filed May 12, 1896. Serial No. 591,245. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. FIRM, a citizen of the United States, residing at Jersey City, county of Hudson, State of New Jersey, have invented new and useful Improvements in Removing Offsets from Longitudinal Folding Mechanisms, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation. Fig. 2 is a plan view.

My invention relates to that class of longitudinal folders which is used in web-perfecting presses; and the object of the invention is to adapt a set-off device to remove the set-off from the folding-rollers at the apex of the longitudinal folding-frame.

The invention consists in the several constructions of parts necessary to attain these objects, as I now will particularly set forth and claim.

In the drawings I have shown a longitudinal folder which receives the printed web from the printing mechanism passing over the guide-roller 1 and under the propelling-wheels 2 3 4, thence to the V-shaped longitudinal folding frame or former A, over which it passes to the milled gripping-rollers 5 6, where the web is longitudinally folded, each of these rollers 5 6 being geared and coacting with gears 7 8 on the set-off cylinders 9 10, of larger diameter than the folding-rollers and which are journaled and hang in the frame B. Above these set-off cylinders 9 10 are wipers 11 12, provided with ratchets 13 14, respectively, having dogs 15 16 to prevent reversal. These wiping-rollers 11 12 are rotated intermittingly in the same direction by means of the ratchets 13 14 on the ends thereof, and pawls 17 18, suitably fulcrumed and pivotally secured to the upper ends of pitmen 19 20, which pitmen have their lower ends operatively connected to a crank-pin 21, eccentrically disposed in a disk 22 on the shaft of the folding-carrier C, the revolution of which operates the pawls to intermittingly engage the ratchets and communicate a corresponding rotation to the upper rollers, such rotation being in a direction opposite to that of the respective set-off cylinders. These

pitmen 19 20 are furnished with turnbuckles 35 36 to shorten or lengthen the shafts 19 20 for engagement with the pawls 17 18, to increase the wiping action of the wipers 11 12. These wipers are of the ordinary construction. I now place two rollers 23 24 in suitable bearings which coact with the milled rollers 5 6 and the set-off cylinders 9 10, and transfer any ink which is received from the longitudinally-folded web D to the set-off cylinders 9 10 and removed therefrom by the wipers 11 12. It is noted that the rollers 23 24 are made of glue and molasses or covered with felt, which will enable their surfaces, by reason of the yielding nature of said rollers, to enter into the grooves of the milled rollers 5 and 6 and insure the removal of the ink therefrom.

What I claim is—

1. The combination with the V-shaped former and the folding-carrier, of a folding and set-off mechanism located at the apex of the former, and comprising a pair of folding-rollers having milled faces, a pair of set-off rollers of larger diameter than the folding-rollers and disposed parallel thereto with a space between their adjacent perimeters, intermeshing gearing connecting all of said rollers, transfer-rollers having yielding surfaces interposed between and below and in contact with the folding-rollers and the set-off rollers, wiping-rollers on the set-off rollers, ratchets on the wiping-rollers, pawls to engage the ratchets, a crank on the folding-carrier, and pitmen connected to the crank and to the pawls, substantially as and for the purpose set forth.

2. The combination with the V-shaped former and the folding-carrier, of a folding and set-off mechanism, located at the apex of the former, and comprising a pair of folding-rollers having milled faces, a pair of set-off rollers of larger diameter than the folding-rollers and disposed parallel thereto with a space between their adjacent perimeters, intermeshing gearing connecting all of said rollers, transfer-rollers having yielding surfaces interposed between the folding-rollers and the set-off rollers, wiping-rollers on the set-off rollers, ratchets on the wiping-rollers,

pawls to engage the ratchets, a crank on the folding-carrier, pitmen connected to the crank and to the pawls to rotate the wiping-rollers, and turnbuckles in the pitmen to adjust them
5 lengthwise, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as

my invention I have signed my name, in presence of two witnesses, this 7th day of May, 1896.

JOSEPH L. FIRM.

Witnesses:

J. O. SMITH,

FRED L. GOSS.