

G. F. McADAMS.
 JOGGER FOR PAPER RULING MACHINES OR PRINTING PRESSES.
 APPLICATION FILED JUNE 10, 1909.

1,028,475.

Patented June 4, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

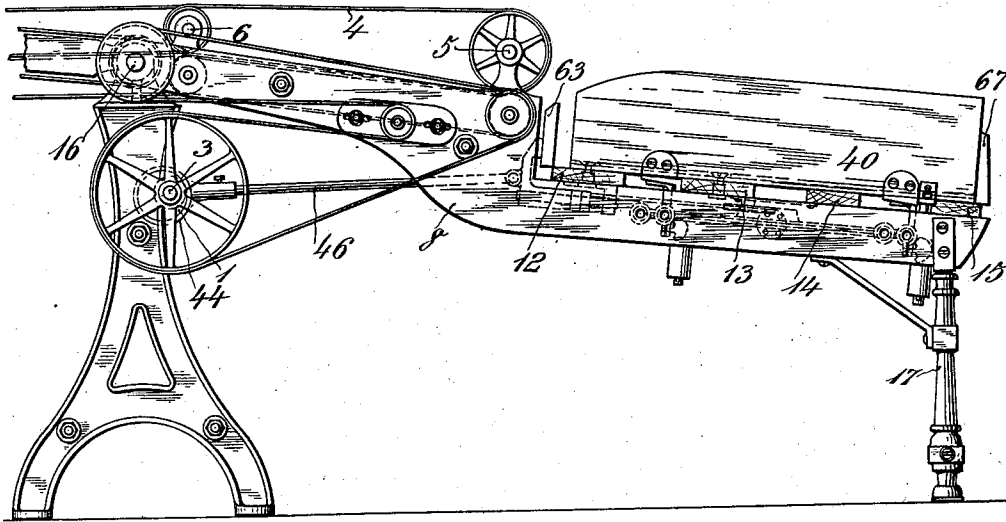
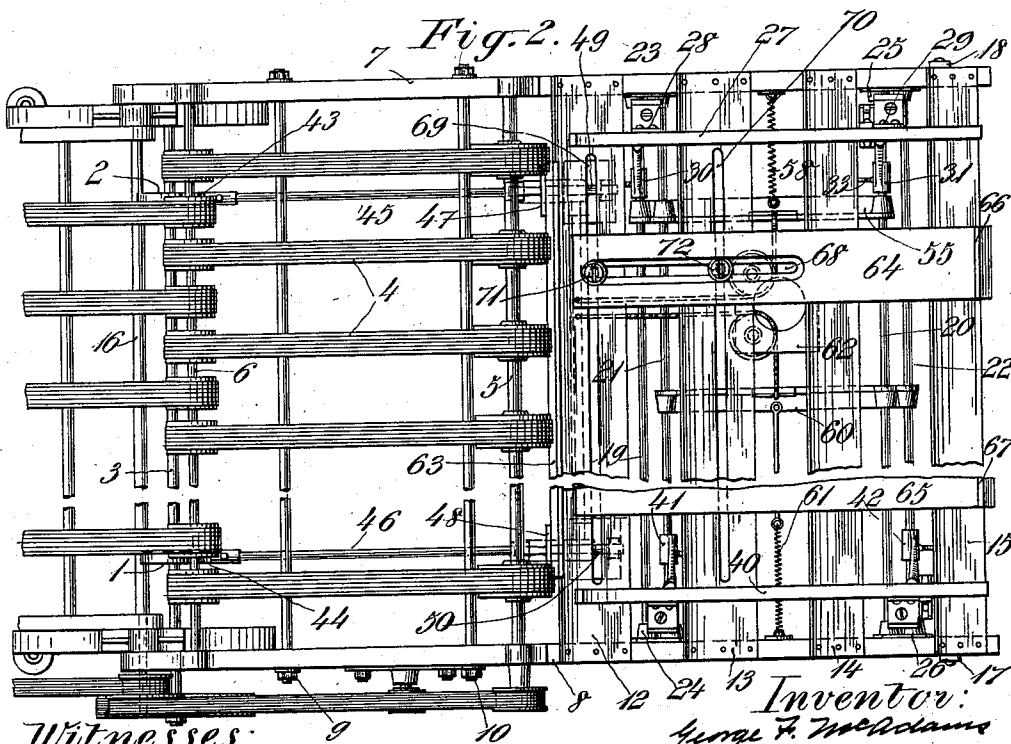


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

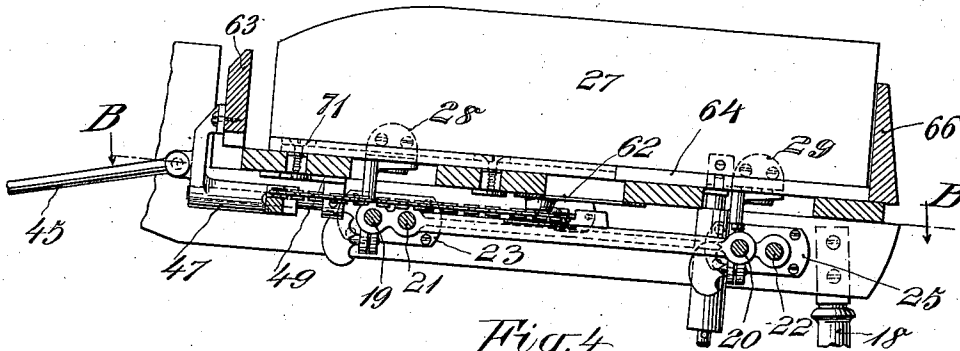


Fig. 4.

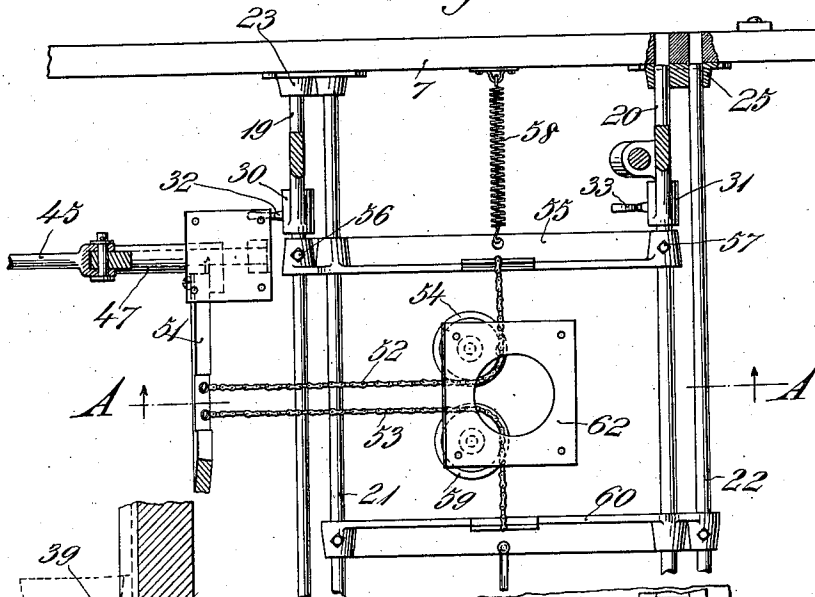


Fig. 5.

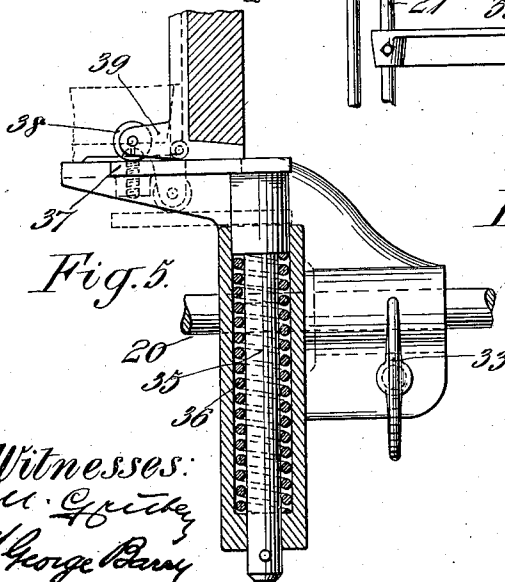
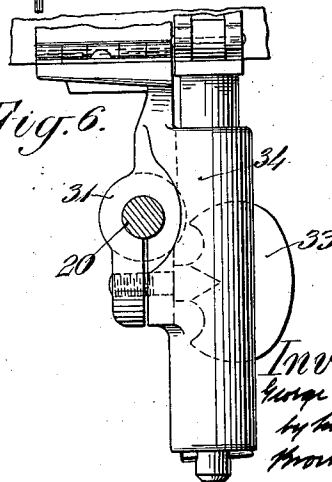


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE F. McADAMS, OF NEW YORK, N. Y.

JOGGER FOR PAPER-RULING MACHINES OR PRINTING-PRESSES.

1,028,475.

Specification of Letters Patent.

Patented June 4, 1912.

Application filed June 10, 1909. Serial No. 501,369.

To all whom it may concern:

Be it known that I, GEORGE F. McADAMS, a citizen of the United States, and resident of the borough of Brooklyn, in the city and State of New York, have invented a new and useful Jogger for Paper-Ruling Machines or Printing-Presses, of which the following is a specification.

My invention relates to a jogger for paper ruling machines or printing presses, the object being to provide a noiseless high speed jogger for squaring a pile of sheets, whatever be their size, within ordinary limits.

A practical embodiment of my invention is represented in the accompanying drawings in which,

Figure 1 is a view of the jogger in side elevation as it appears attached to a ruling machine as in use. Fig. 2 is a top plan view of the same, Fig. 3 is an enlarged vertical longitudinal section of the jogger in the plane of the line A—A, Fig. 4. Fig. 4 is a partial horizontal section in the plane of the line B—B, Fig. 3. Fig. 5 is an enlarged view in detail, partly in section, showing a side support for adjustably securing a side in proper relation to the opposite side and for holding it yieldingly in upright position, and Fig. 6 is a view of the same in elevation turned at an angle of 90° to the position shown in Fig. 5.

The ruling machine may be of any well known or approved construction adapted to deliver ruled sheets on to a table, its present construction, so far as it co-acts with the jogger, comprising cams 1 and 2 on the shaft 3 and a series of delivery tapes 4 mounted on pulleys on shafts 5 and 6 carried in the forward portion of the jogger frame. The jogger frame consists of side rails 7 and 8 connected by tie rods, two being shown denoted by 9, 10, and by slats, four being shown denoted by 12, 13, 14, 15. The side rails 7 and 8 are conveniently hinged at their forward ends to a cross rod 16 at the back of the ruling machine and their rear ends are supported by legs 17 and 18.

Between the side rails 7 and 8, longitudinally reciprocating rods or shafts are mounted, one pair being denoted by 19, 20, and another pair by 21, 22. The longitudinal reciprocatory movement of these rods or shafts is slight, in practice about three-eighths of an inch more or less, and they are conveniently mounted in socket

brackets, the rods 19, 20 being mounted in brackets 23, 24, and the rods 20, 22 in brackets 25, 26. On the rods 19, 20 a side board 27 is secured by means of hinges 28, 29, one leaf of each hinge being secured to the side board 27 and the opposite leaves to split sleeves 30, 31, provided with clamp screws 32, 33, for clamping the sleeves to the rods 19, 20, in different desired adjustments along the rods 19, 20. The sleeve 31 has formed integral therewith or securely made fast thereto, a socket piece 34 for receiving a vertically movable plunger 35 which is normally held at its raised position by a spring 36 within the socket piece, in the present instance, a coil spring surrounding the plunger 35. The plunger 35 is provided with a flat head 37 on which a roller 38 carried by a lug 39 projecting from the side board, bears. This structure admits of tilting the side board down into the position shown in dotted lines, Fig. 5, to remove a pile of paper, the plunger 35 being depressed by the action of the roller 38 on its head 37 when the side board 27 is tilted outwardly. The roller 38 will be carried by the full downward tilt of the side board, on to or a trifle past center with respect to the upward push of the spring 36, so that the action of the spring will tend to hold the side board in its flat downwardly turned position, while permitting it to be readily thrown up into its upright position and will then serve to hold it in its upright position. The spring 36 which acts upon the plunger 35, serves to hold the side board normally in its upright position but will tilt sufficiently to permit it to be tilted outwardly when it is desired to do so. In like manner, a side board 40 is supported opposite the side board 27, on split sleeves 41 and 42, to which it is hinged, the sleeve 42 being provided with a spring-actuated plunger to permit it to be intentionally swung outwardly and downwardly to remove paper when so desired, all as hereinbefore described with respect to the side board 27.

The side boards 27 and 40 are simultaneously moved or jogged toward and away from each other by means of the cams 1 and 2 on the ruling machine, as follows: The cams 1 and 2 consist in the present instance, of circular disks set eccentrically on the shaft 3, and are connected by straps 43, 44, with pitmen 45, 46, leading back to brackets 47, 48, mounted to reciprocate on stub

shafts 49, 50, fixed to the under side of the cross slat 12 and connected by a cross bar 51. The cross bar 51 has leading backwardly therefrom, two chains, denoted respectively by 52, 53, the chain 52 passing partially around a guide pulley 54 and thence laterally to a bar 55 made fast at its opposite ends to the transversely movable rods or shafts 19, 20. In the present instance, the bar 55 has sockets at its opposite ends through which the bars 19, 20, pass and is made fast to the bars by means of set screws 56, 57, passing through the walls of the sockets into contact with the rods or shafts. The bar 55 is drawn normally toward the side rail 7, by means of a retracting spring 58. The chain 53 passes partially around a guide pulley 59 and thence to a bar 60 quite similar to the bar 55, and connected in a similar manner to the movable rods or shafts 21, 22. This bar 60 is also drawn normally toward the side rail 8 by a retracting spring 61. The guide pulleys 54 and 59 are carried by a plate 62 made fast to the under side of the slats 13, 14.

The brackets 47, 48, have fixed to their upper portions, a front board 63.

On top of the slats 12 to 15 inclusive, and extending transversely thereto, or in the longitudinal direction of the machine, are floor pieces, in the present instance, two, denoted by 64, 65. These floor pieces are provided at their back ends with lips or ledges 66 and 67, extending upwardly therefrom to a height equal to or greater than the height to which the paper is to be piled, these lips or ledges forming a back stop for the sheets. The floor pieces 64, 65, are made adjustable forwardly and laterally by means of elongated slots 68 in the floor pieces themselves, one slot only being shown in the floor piece 64, it being understood that the floor piece 65 is provided with a similar slot, and elongated slots 69 and 70 in the slats 12 and 13. Set screws 71, 72, two for each of the floor pieces 64 and 65, extend through the slot in the floor piece and through the slots in the slats 12 and 13, to hold the floor pieces in their adjustment longitudinally of the machine and also laterally of the machine.

In operation, the side boards 27 and 40 having been adjusted toward or away from each other to suit the size of paper being ruled, and the floor pieces having been adjusted forwardly or backwardly and laterally with respect to the side boards, to occupy the proper positions relative thereto, the rotary motion of the shaft 2 will impart to cross bar 51 through the cams 1 and 2 and the pitmen 46 and 45, a forward and backward movement, the extent of which depends upon the eccentricity of the cams 1 and 2. This movement of the bar 51 will

impart to the bars 55 and 60, through the chains 52, 53, and through the retracting springs 58, 61, a lateral reciprocatory movement of the pair of rods or shafts 19, 20, and of the pair of rods or shafts 21, 22, and hence of the side boards 27 and 40 carried by these pairs of side rods respectively. This lateral jogging motion of the side boards and the forward and backward jogging motion of the front board which moves together with the cross bar 51, will tend to jog the several sheets of paper as they are delivered into register with those previously delivered, thereby squaring the edges of the pile.

The structure is one which admits of adjustment of the sides and floor pieces with facility, the jogging motion while slight, is very effective, and is produced without any severe wear and tear of strain upon the parts.

The automatic holding of the side boards in either their upright or horizontal positions by the pressure of the head of the plunger against the bearing roller, while permitting the side board to be tilted downwardly and upwardly without any attention to locking or unlocking, also adds to the advantages of the machine in the direction of time saving.

It will be seen that a jogger of this construction can operate very rapidly without noise, there being an absence of any joints or movements that would pound under rapid motion.

What I claim is:

1. In a jogging attachment, a suitable support, a side board hinged to the support and a spring-actuated plunger arranged to hold the side board in either its upright or tilted position.

2. In a jogging attachment, a supporting frame, rods or shafts mounted to move longitudinally in a direction transverse to the frame, side boards fixed to said shafts or rods, a rotary shaft, a cam on the shaft, a cross bar, a pitman connecting the cross bar with the cam, and flexible connections between the cross bar and said movable shafts or rods for imparting movement to the side boards.

3. In a jogging attachment, a suitable supporting frame, side boards mounted to move toward and away from each other, a cross bar mounted to move backward and forward, a rotary shaft, cams on the shaft, pitmen connecting the cams with the cross bar, and flexible connections between the cross bar and movable side boards.

4. In a jogging attachment, the combination with a paper support, of side boards hinged to the support, and spring-actuated plungers for holding the side boards in either an upright or a horizontal position.

5. A jogging attachment for paper ruling

machines or printing presses, comprising a
frame hinged at one end to the machine or
press and provided at its opposite end with
supporting legs, rods or shafts mounted to
5 reciprocate transversely of the frame, guide
pulleys carried by the frame, a cross bar
mounted to move backward and forward
relative to the frame, flexible connections
passing over the guide pulleys and connect-
10 ing the said reciprocating rods or shafts
with the cross bar, a rotary shaft carried by
the machine or press, cams on the shaft,

pitmen connecting the cams with the cross
bar on the jogging attachment and a front
board fixed to move with the cross bar.

15

In testimony, that I claim the foregoing
as my invention, I have signed my name in
presence of two witnesses, this fourth day of
June, 1909.

GEORGE F. McADAMS.

Witnesses:

F. GEORGE BARRY,
HENRY THIEME.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."