

Sept. 15, 1931.

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1,823,744

JOGGING MACHINE

Filed June 27, 1928

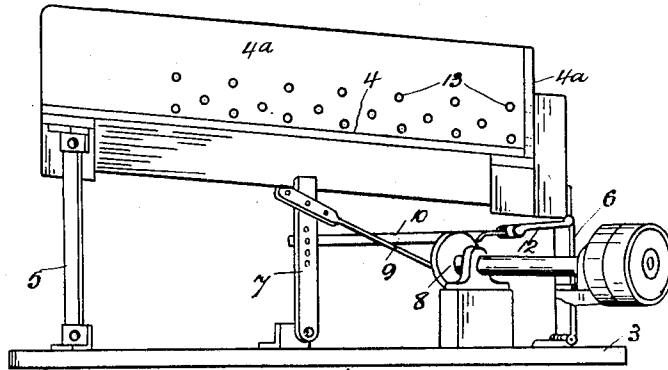


Fig. 1

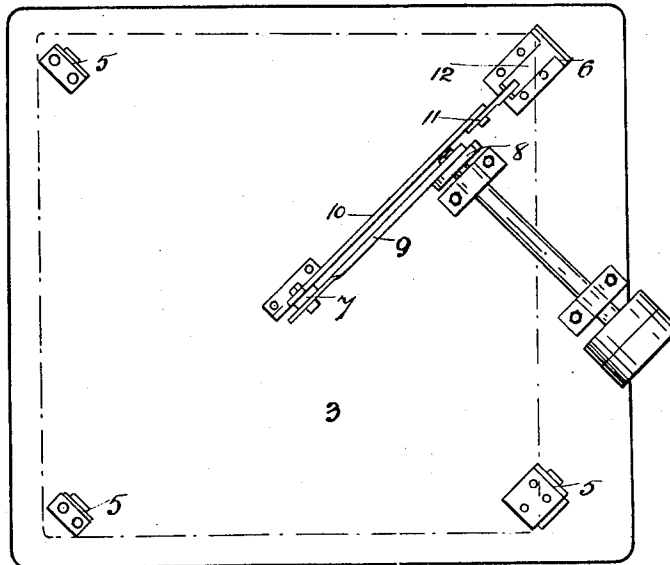


Fig. 2

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JOGGING MACHINE

Application filed June 27, 1928, Serial No. 288,779, and in Australia March 19, 1928.

This invention relates to jogging machines or appliances for collating or knocking up printed or otherwise prepared sheets in the manufacture of books.

5 The invention comprises a rectangular two sided tray that is adapted to be held in an inclined position say at an angle of from 25 to 35 degrees. To the tray is given reciprocatory movements in line with the lower 10 corner or angle of its sides. The tray is placed upon legs of differing lengths hinged upon a table or other support and means are provided for imparting movement to the tray upon which the sheets to be collated are 15 placed, one by one, as same are prepared.

Three of the legs supporting the tray may be composed, if so desired, of stout flat springs which are adapted to be compressed by the forward thrust of the reciprocating 20 means and which are disposed to react in advance of such means thereby giving to the table a quicker return movement.

The thrust is given through a central pillar pivotally mounted on the table or support 25 and connected with the lower corner of the tray through a connecting rod. Any suitable means for exerting a thrust upon the central pillar may be employed, such as a continuous ramp cam or a revolving disc and connecting 30 rod.

In the accompanying drawings,

Fig. 1 shows the appliance inside elevation, one of the supporting legs being removed the better to illustrate a driving 35 means.

Fig. 2 is a plan view of the table with the tray removed but showing the supports and the driving means.

40 The machine is supported on a plane surface or table 3 and consists of a tray 4 in an inclined position on legs that vary in length according to position.

If the legs are rigid same will be hingeably connected to the table 3 at the lower ends 45 and attached to the tray or its connections at the other ends. Centrally situated pivotally on the table is a pillar 7 that is adapted to be rocked in line with the lower corner or angle of the sides 4a and this member is 50 attached to the rear leg 6 of the tray through

a connecting rod 10, a slotted bar 11 and a hinged plate 12. Also attached to the pillar is a connecting rod 9 from a crank disc 8 on a driving spindle that it is rotated from any convenient means. The pillar is perforated 55 at intervals in its length to permit of the adjustment thereon of the rods 9 and 10 thereby providing for variations in the throw of the tray 4.

As the disc rotates the pillar will be rocked 60 or reciprocated and through it the tray on its support.

Three of the supporting legs may consist of stout flat springs 5 with their broad surfaces in a line at right angles with the line 65 of throw of the tray. These springs are attached firmly to the table 3 and likewise to the inclined tray 4. The outward movement of the pillar and the tray will cause the spring legs 5 to be bent or tensioned but immediately 70 the rod 9 upon the revolving disc 8 gets over the centre and the outward movement of the pillar 7 ceases, the springs 5 will react to return the tray faster than it was advanced.

The movement is only slightly in advance 75 of the disc 8 but sufficient to accelerate the movement of the sheets upon the tray into its corner.

To facilitate the escape of air contained between one sheet and another as a sheet is 80 placed on the tray, holes 13 are bored at intervals in the sides 4a through which the imprisoned air escapes and the sheets are permitted to collapse and lie properly in the pile.

If desired the tray 4 may be varied in size 85 either by placing a removable side at a point upon the floor of same or by placing thereon a false tray of greater area and made of any suitable material.

If a cam is used to rock the pillar 7 it will 90 be employed with the springy legs 5 or other springs will be used to return the tray after a thrust.

Having now described my invention what I claim as new and desire to secure by Letters 95 Patent is:—

1. In a jogging machine, an inclined tray having two sides, legs of flat spring metal supporting the tray, a pivotally mounted pillar below the tray connected thereto at the 100

rear, and means for rocking the pillar to cause the springy legs to flex and then to react to return the tray to its original position.

2. In a jogging machine, an inclined tray having two sides, legs of flat spring metal supporting the tray, a pivotally mounted perforated pillar below the tray connected thereto at the rear, a hingeably mounted non-flexible leg at the rear of the tray, and means for rocking the pillar in a line bisecting the angle of the sides of the tray.

3. In a jogging machine, in combination, an inclining tray, two sides to the same, a pivotally mounted pillar below the tray, connecting rods between the tray and the pillar, a crank disc, a connecting rod between the disc and the pillar, and means for rotating the disc.

4. In a jogging machine, in combination, an inclining tray, two sides to the same that are perforated, spring metal legs to the tray, a stiff, hingeably mounted leg under the lowest corner, a pivotally mounted pillar below the tray, connecting rods between the stiff leg and the pillar, and means for rocking the pillar.

5. A jogging machine comprising a tray inclined to the horizontal, legs supporting the said tray, one of the said legs being a rigid pivoted member, while the other legs are formed of spring metal, a pivoted driving link for the said tray, a source of power for the driving link, and linkage interconnecting the said driving means, the said link, and the said tray, the movement of the said tray causing packing of leaf material of substantially uniform size therein as a result of the inertia of the material, at the end of the stroke.

6. A jogging machine comprising a tray inclined to the horizontal, legs supporting the said tray, one of the said legs being a rigid pivoted member, while the other legs are formed of spring metal, the spring legs facing with their broad face substantially at right angles to the angle bisecting the corner of the tray adjacent the pivoted leg, a pivoted driving link for the said tray, a source of power for the driving link, and linkage interconnecting the said driving means, the said link, and the said tray, the movement of the said tray causing packing of leaf material of substantially uniform size therein as a result of the inertia of the material, at the ends of the stroke.

7. A jogging machine comprising a tray inclined to the horizontal, legs supporting the said tray, one of the said legs being a rigid pivoted member, while the other legs are formed of spring metal, a pivoted driving link, continuous positive driving means, and linkage interconnecting the said driving means, the said link, and the said tray, the said linkage having a lost motion mechanism therein whereby the spring legs will return the tray to its normal position more

rapidly than the action of the driving means, the movement of the said tray, combined with the inertia of leaf material of substantially uniform size therein, resulting in the packing therein.

8. A jogging machine comprising a tray inclined to the horizontal, legs supporting the said tray, one of the said legs being a rigid pivoted member, while the other legs are formed of spring metal, the said spring legs facing with their broad side at substantially right angles to the angle bisecting that corner of the tray adjacent the pivoted leg, a pivoted driving link, continuous positive driving means, and linkage interconnecting the said driving means, the said link, and the said tray, the said linkage having a lost motion mechanism therein whereby the spring legs will return the tray to its normal position more rapidly than the action of the driving means, the movement of the said tray, combined with the inertia of leaf material of substantially uniform size therein, resulting in the packing thereof.

9. A jogging machine comprising a tray inclined to the horizontal, legs supporting the said tray, one of the said legs being a rigid pivoted member, while the other legs are formed of spring metal, a pivoted driving link for the said tray, a source of power for the driving link, and linkage interconnecting the said driving means, the said link, and the said tray, means being provided in the pivoted driving link for adjusting the throw of the linkage, the movement of the said tray causing packing of leaf material of substantially uniform size therein as a result of the inertia of the material, at the ends of the stroke.

10. A jogging machine comprising a tray inclined to the horizontal, the walls of which tray have perforations therein, legs supporting the said tray, one of the said legs being a rigid pivoted member, while the other legs are formed of spring metal, a pivoted driving link for the said tray, a source of power for the driving link, and linkage interconnecting the said driving means, the said link, and the said tray, the movement of the said tray causing packing of leaf material of substantially uniform size therein as a result of the inertia of the material, at the ends of the stroke.

In testimony whereof I have signed my name to this specification.

JOSEPH FREEBURY KING.