April 7, 1925. 1,532,318

W. S. KISINGER

PANEL MANUFACTURING DEVICE

Filed Aug. 31, 1922 3 Sheets-Sheet 1

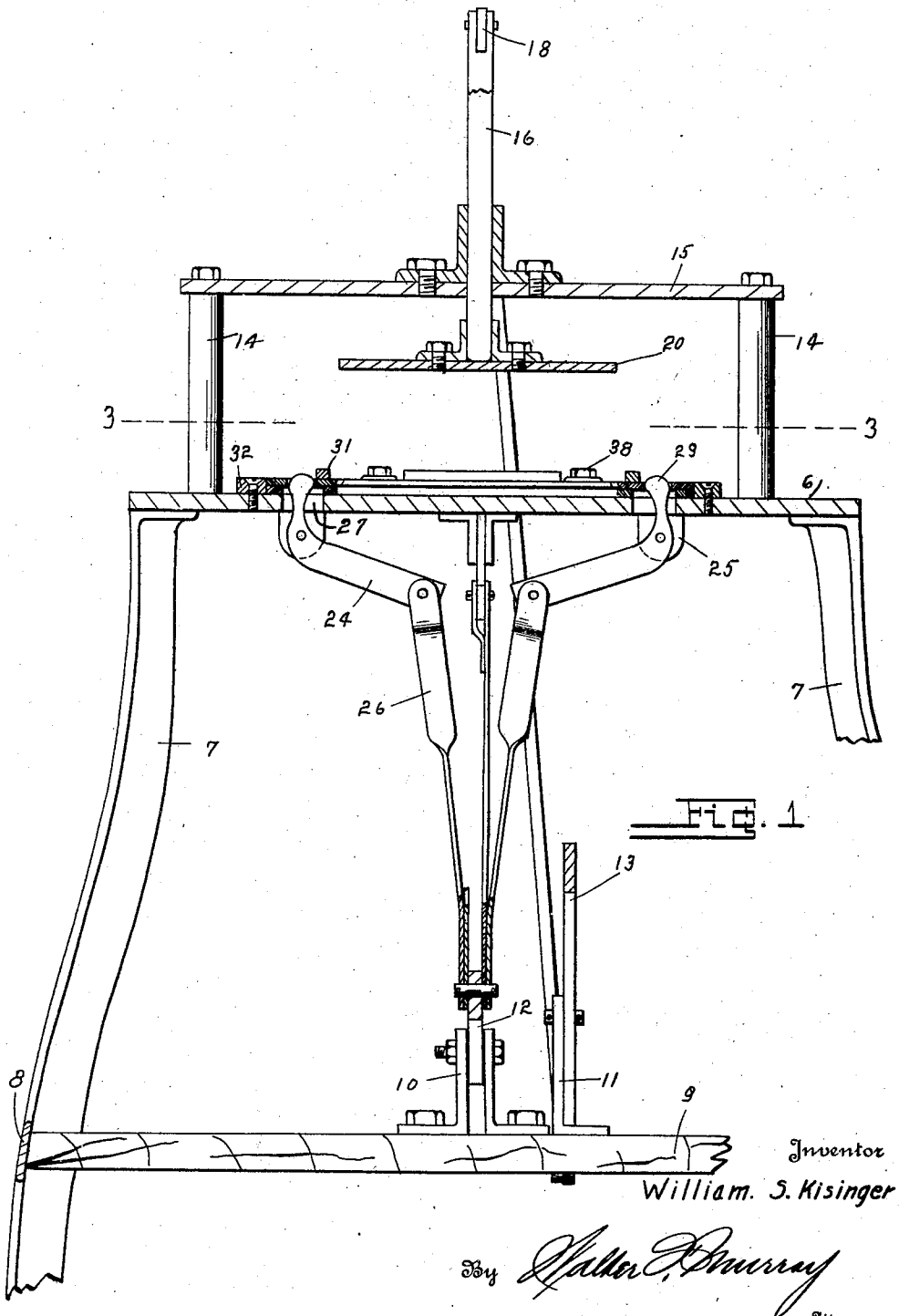


Fig. 1

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Filed Aug. 31, 1922 3 Sheets-Sheet 2

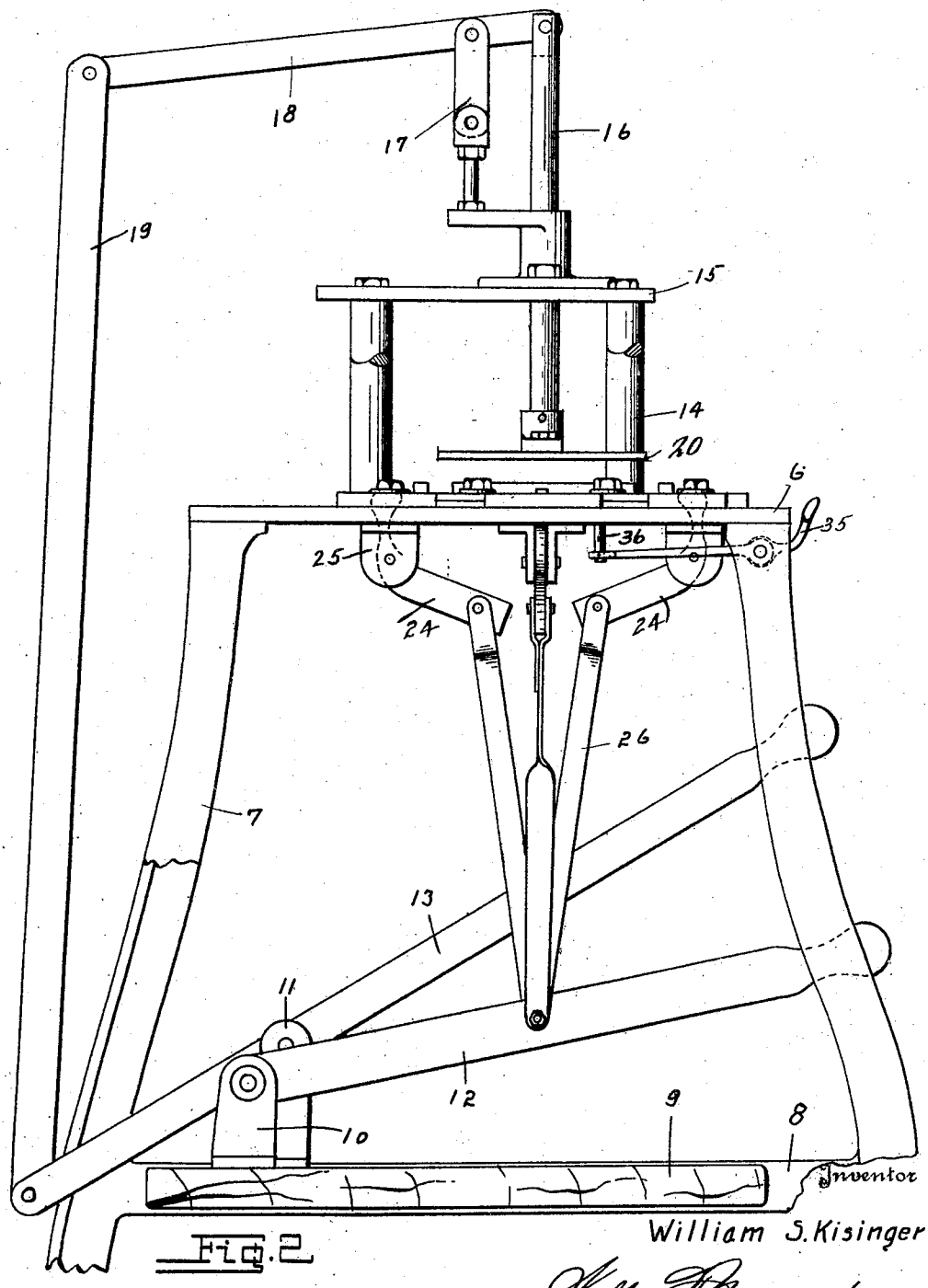


Fig. 2

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Filed Aug. 31, 1922 3 Sheets-Sheet 3

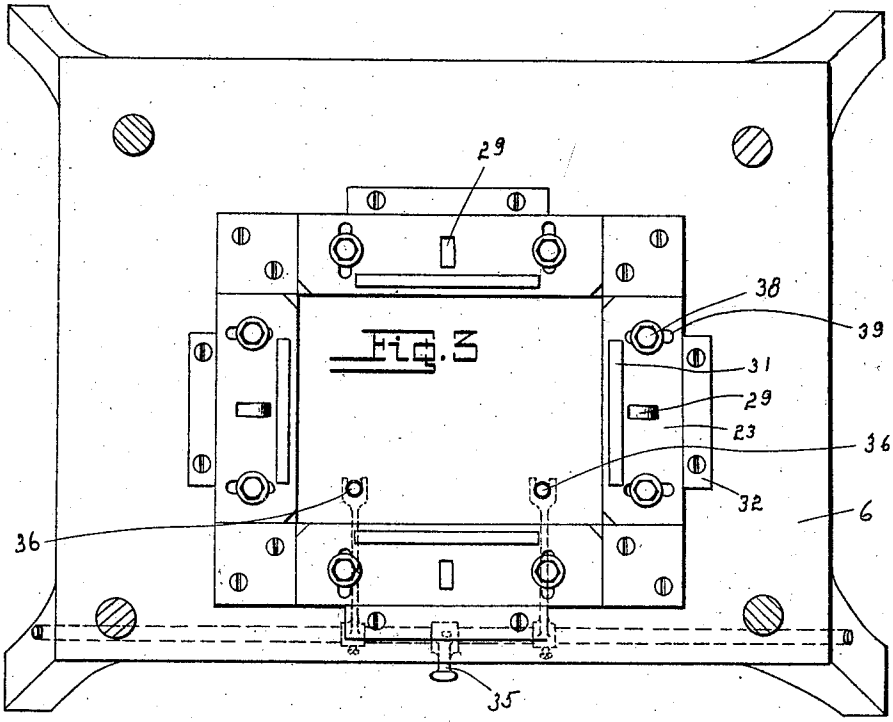


Fig. 3

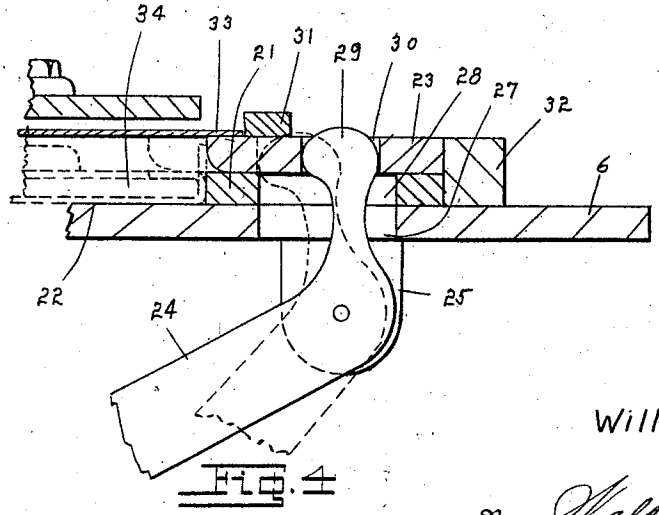


Fig. 4

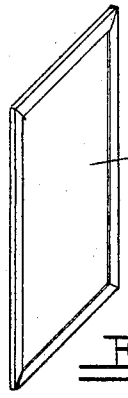


Fig. 5

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Patented Apr. 7, 1925.

1,532,318

UNITED STATES PATENT OFFICE.

WILLIAM STIERS KISINGER, OF COVINGTON, KENTUCKY, ASSIGNOR TO THE DONALDSON ART SIGN COMPANY, OF COVINGTON, KENTUCKY, A CORPORATION OF KENTUCKY.

PANEL-MANUFACTURING DEVICE.

Application filed August 31, 1922. Serial No. 585,567.

To all whom it may concern:

Be it known that I, WILLIAM STIERS KISINGER, a citizen of the United States of America, and a resident of Covington, in the county of Kenton and State of Kentucky, have invented a new and useful Improvement in a Panel-Manufacturing Device, of which the following is a specification.

An object of my invention is to provide a simple and efficient device for affixing metallic backing upon sheets of cardboard and the like whereby to effect a compact panel.

Another object of my invention is to provide a device for the purpose stated having a minimum of parts, and the operation of which is positive, direct and simple.

These and other objects are attained by means described herein and disclosed in the accompanying drawings in which:

Figure 1 is a fragmental front elevation of a device embodying my invention, and shown partly in section.

Fig. 2 is a side view of the device shown in Fig. 1, partly in section.

Fig. 3 is an enlarged sectional view on line 3—3 of Fig. 1.

Fig. 4 is an enlarged fragmental elevation showing parts of the device embodying my invention, partly in section.

Fig. 5 is a perspective view of a panel produced by a device embodying my invention.

The table 6 is supported by legs 7 disposed at the four corners of the table. The legs at the sides of the table are joined adjacent their bottoms by cross bars 8 between which extends a plank 9 supporting lugs 10 and 11 upon which are pivotally mounted hand levers 12 and 13 respectively. The table has mounted on it upwardly extending standards 14 supporting at their tops a plate 15 through which plate reciprocally extends a reciprocating shaft 16. A vertically adjustable bracket 17 is carried by the plate 15 and pivotally supports an arm 18, intermediate the ends of the arm. The forward end of the arm is pivotally connected with the upper end of the reciprocating shaft 16, and the rear end of the arm 18 is pivotally connected with the upper end of a link 19, the lower end of which link is pivotally connected to the rear end of the hand lever 13. The hand lever 13 is pivotally mounted intermediate its ends upon the lug 11. The lower end of the reciprocating shaft 16 carries a foot 20. The table 6 carries a frame 21 having a central opening or seat 22 for which the table forms a bottom, and into which opening or seat the foot 20 is adapted to enter. The frame 21 has slidably mounted on it reciprocating dies 23 adapted to be moved backward and forward over the opening 22 in the frame. The dies 23 are reciprocated by means of the hand lever 12. The mechanism for actuating the dies comprises bell cranks 24 pivotally mounted upon downwardly extending lugs 25 carried by the table, the lower ends of which bell cranks are pivotally connected with the hand lever 12 by links 26. The upper ends of the bell cranks extend upwardly through slots 27 in the table and 28 in the frame 21. The upper ends of the bell cranks are developed into globular heads 29 which lie in slots 30 in the dies, and upon the vertical walls of which slots the globular head 29 engages. The oscillation of the bell cranks about their pivotal mountings is transmitted to and developed into a reciprocating motion of the dies. The dies have mounted upon them blocks 31. The blocks 31 are spaced at such distances that when the dies are in their normal position, at which time the outer ends of the dies engage the stop blocks 32 carried by the table, a blank 33 may be inserted between the blocks 31 and will lie upon the upper faces of the inner ends of the dies 23. After the blank 33 has been so placed on the dies 23, the hand lever 13 is depressed, thereby bringing the foot 20 into engagement upon the blank and moving the blank into the opening in the frame 21, thereby turning the outer edges of blank 33 at an angle to the center portion thereof. The foot 20 is then withdrawn and a panel 34 of cardboard or other material is mounted upon the blank 33, being inserted between the upturned edges of the blank. If desired a number of cardboards or similar elements 34 may be placed upon the blank thereby providing a laminated panel. After the foot is withdrawn, the hand lever 12 is depressed, whereupon the dies 23 are moved over the inner edges of the frame 21 thereby bending the upstanding edges of the blank over the outer edges of the panel 34. A lever 35 pivotally mounted upon the forward legs of the device, carries at its rear ends lugs 36 which may be reciprocated thru the table 6 whereby to raise the forward end of the finished article 37 in order that the opera-

tor may remove the composite panel 37 from the table 6. The dies are reciprocally mounted upon the frame by means of bolts 38 extending slidably thru elongated slots 39 formed in the dies. The corners of the blanks 33 are removed to sufficient extent that the edges of the blank may assume the positions shown in Fig. 5 after the edges are turned over the panel 34.

What I claim is:

1. In a device of the class described the combination of a table having a depression formed in its top, a reciprocating shaft carried by the table, a foot carried by the shaft adapted to enter the depression in the table, dies carried by the table adapted to be reciprocated above the depression, perpendicular to the reciprocating shaft, and lever actuated means to reciprocate the shaft and the last mentioned dies.

2. In a device of the class described the combination of a table having a depression formed in its top, a reciprocating shaft carried by the table, a foot carried by the shaft adapted to enter the depression in the table, lever actuated means to reciprocate the shaft, dies carried by the table adapted to be reciprocated above the depression, perpendicular to the reciprocating shaft, pivotally mounted means to reciprocate the last mentioned dies, and means to dislodge articles from the depression.

3. In a device of the class described the combination of a table, legs supporting the table, cross bars connecting the legs, a frame mounted on the table having a central opening, for which opening the table forms a bottom, standards carried by the table extending upwardly therefrom, a plate carried by the standards, a vertically reciprocating shaft extending thru the plate, a foot mounted on the lower end of the reciprocating shaft adapted to enter the opening in the frame, a bracket carried by the plate, an arm pivotally mounted on the bracket pivotally engaging the reciprocating shaft, a hand lever pivotally mounted on the cross bars, a link pivotally connecting the hand lever and the arm, dies reciprocally mounted on the frame adapted to be moved over the opening in the frame, bell cranks pivotally mounted on the table, one end of each of the bell cranks extending thru slots provided in the table and frame and pivotally engaging a die, a second hand lever carried by the cross bars, and links pivotally connecting the bell cranks and the last mentioned hand lever.

4. In a device of the class described the combination of a table, legs supporting the table, cross bars connecting the legs, a frame mounted on the table having a central opening, for which opening the table forms a bottom, standards carried by the table extending upwardly therefrom, a plate carried by the standards, a vertically reciprocating shaft extending thru the plate, a foot mounted on the lower end of the reciprocating shaft adapted to enter the opening in the frame, a bracket carried by the plate, an arm pivotally mounted on the bracket pivotally engaging the reciprocating shaft, a hand lever pivotally mounted on the cross bars, a link pivotally connecting the hand lever and the arm, dies reciprocally mounted on the frame adapted to be moved over the opening in the frame, bell cranks pivotally mounted on the table, one end of each of the bell cranks extending thru slots provided in the table and frame and pivotally engaging a die, a second hand lever carried by the cross bars, links pivotally connecting the bell cranks and the last mentioned hand lever, and blocks mounted on the dies adapted to receive between them a blank to be carried into the opening in the frame by the foot.

In testimony whereof, I have hereunto subscribed my name this 25th day of August, 1922.

WILLIAM STIERS KISINGER.