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BOOKBINDER'S GLUING PRESS.

APPLICATION FILED APR. 30, 1910.

972,617.

Patented Oct. 11, 1910.

3 SHEETS—SHEET 1.

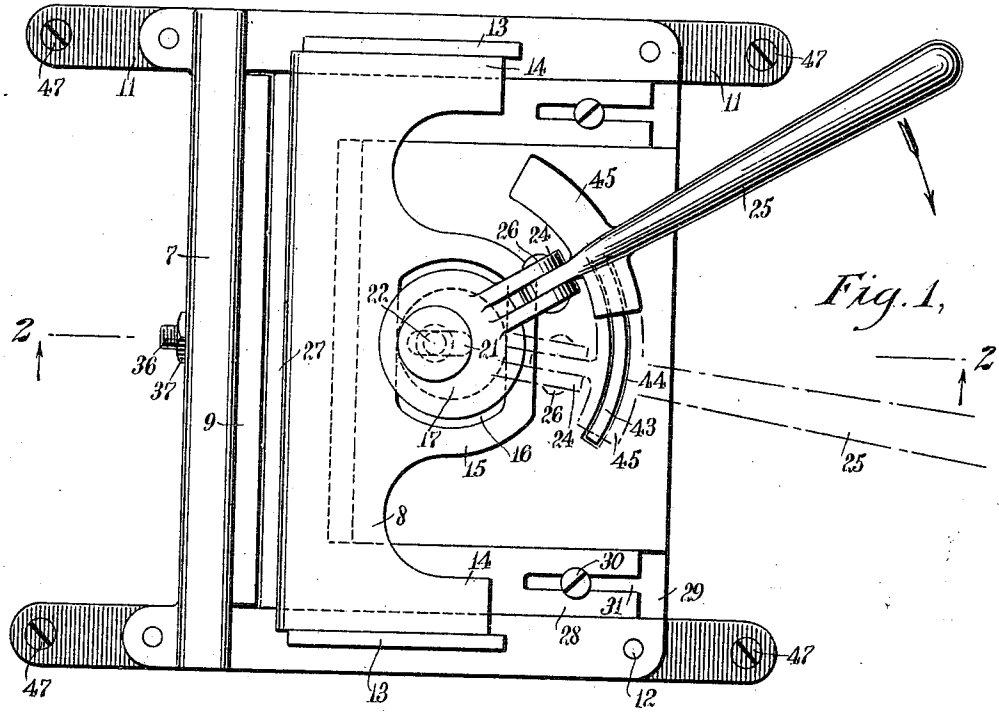

Fig. 1,

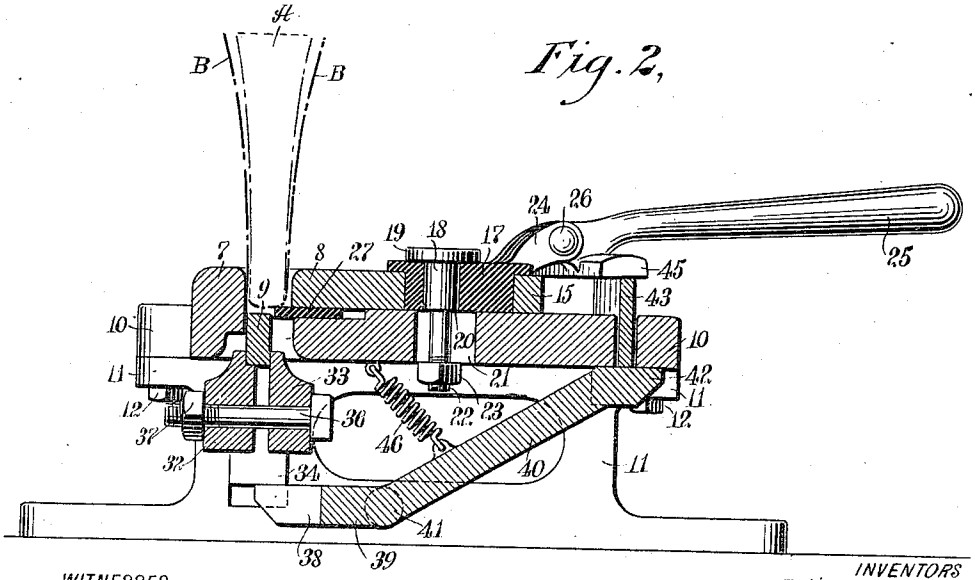

Fig. 2,

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3 SHEETS—SHEET 2.

Fig. 3.

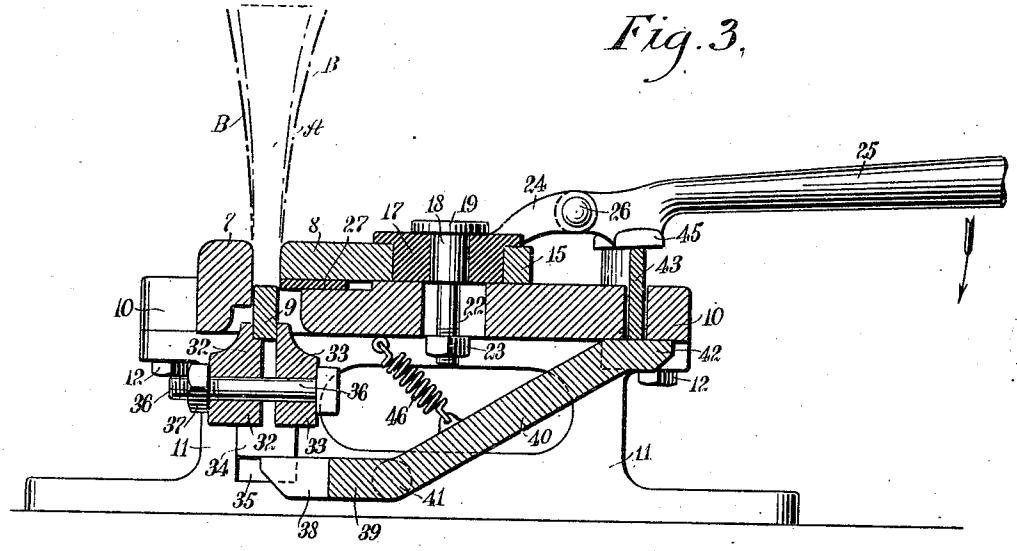
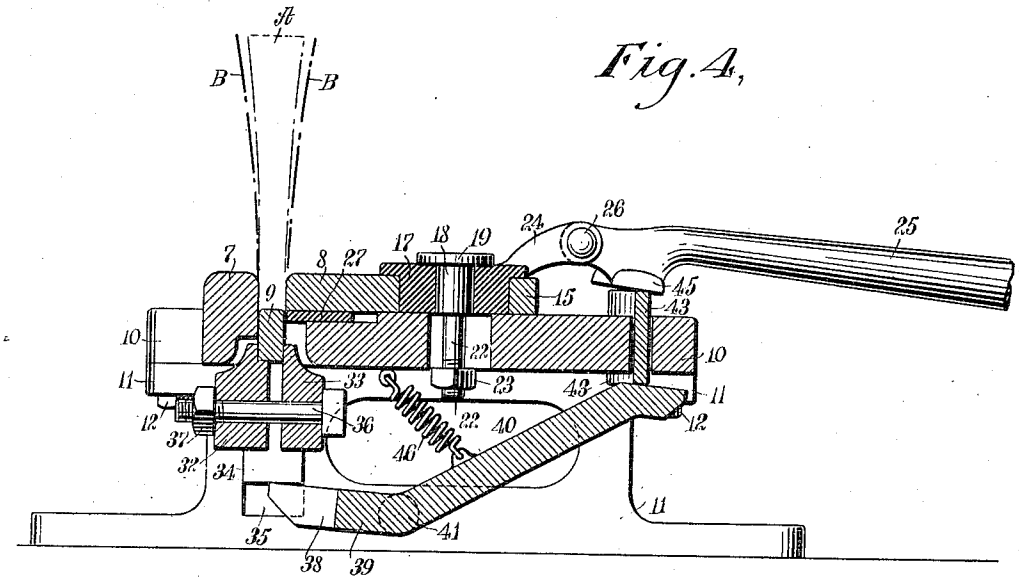


Fig. 4.



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3 SHEETS—SHEET 3.

Fig. 5,

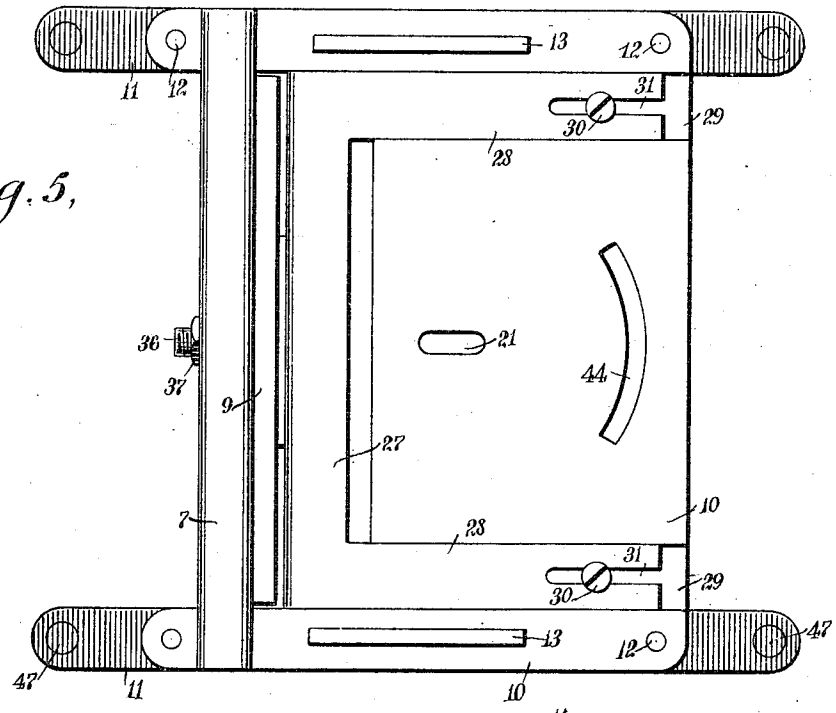
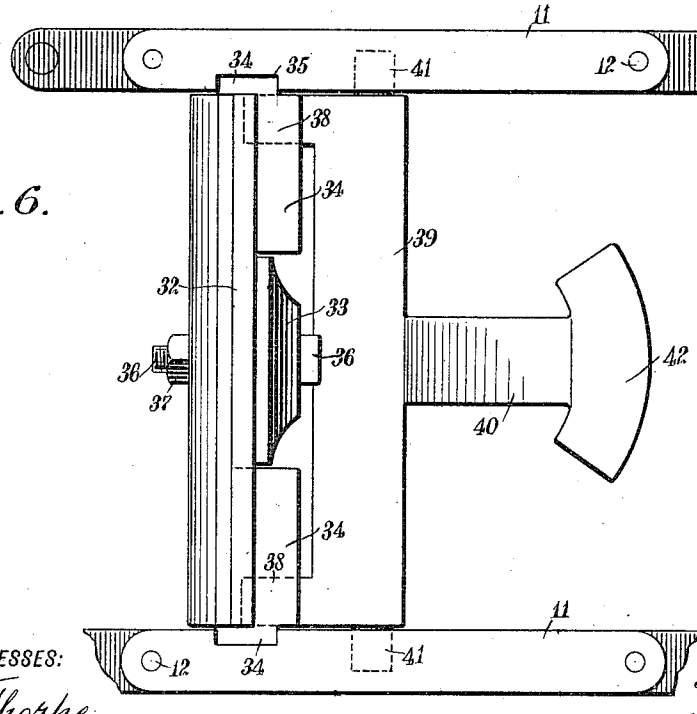


Fig. 6.



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UNITED STATES PATENT OFFICE.

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BOOKBINDER'S GLUING-PRESS.

972,617. Specification of Letters Patent. Patented Oct. 11, 1910.

Application filed April 30, 1910. Serial No. 558,645.

To all whom it may concern:

Be it known that we, JULIUS GIESECKE, BEN F. NEBERGALL, and GEORGE F. OHEIM, citizens of the United States, and residents of New Braunfels, in the county of Comal and State of Texas, have invented a new and Improved Bookbinder's Gluing-Press, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide a bench press constructed and arranged to compress the binding on the body of a book, and on three sides thereof simultaneously; to provide a press of the character described which is adjustable to accommodate books of various thicknesses; and to provide a press of the character described the construction of which is simple and durable.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a plan view of a press constructed and arranged in accordance with the present invention; Fig. 2 is a vertical section taken on the line 2—2 in Fig. 1, showing the press as disposed with the clamping jaws and bottom plunger in open receiving position; Fig. 3 is a similar section taken on the line 2—2 in Fig. 1, showing the clamping jaws and bottom plunger in position closed upon the interposed book and prior to applying pressure thereto; Fig. 4 is a sectional view taken on the line 2—2 in Fig. 1, showing the clamps and bottom plunger in position when exerting full pressure upon the book; Fig. 5 is a plan view of the press; the movable jaw of the clamp, the operating lever therefor, and parts connected therewith being removed; and Fig. 6 is a plan view showing the side frame and bottom plunger mechanism mounted thereon.

Books, pamphlets, magazines, and periodicals of other character, after being arranged, are temporarily or permanently held by being glued to a temporary thin strip or flexible cover. According to the character of binding the book is subsequently sewed or stapled. It is to assist in the operation whereby the glued strip is secured on the compiled book, which is the main function of the present invention. To accomplish this the book, after being arranged is placed on edge between clamp jaws 7 and 8 and upon a presser bar. In this position the machine is operated to rigidly, and with pressure, force the glued section of the book A against the strip or cover B. The mechanism for effecting this operation comprises a horizontal clamping mechanism and an upward plunger mechanism. The horizontal clamping mechanism comprises primarily the stationary jaw 7, which is integrally formed upon a bed plate 10. The bed plate 10 is supported by standards 11, 11, to which the bed plate is secured by bolts 12, 12. The bed-plate 10 is provided with upstanding guide fins 13, 13, between the inner sides of which slides the moving jaw 8. The moving jaw 8 is provided with extensions 14, 14, the sides whereof are machined to fit in guided relation the fins 13. The jaw 8 is further provided with an extension 15 in which is formed an elongated opening 16, the parallel sides of which are maintained in constant engagement with an eccentric head 17. The head 17 is rotatably mounted on a pivot pin 18, the cap head 19 whereof overlies the top of the head 17, while the shoulder 20 overhangs the sides of a slot 21 formed in the bed plate 10 below the position of the head 17. It is through the slot 21 that the contracted portion of the pin 18 or a bolt 22 is extended. The bolt 22 has a screw-threaded end upon which is suitably mounted a screw nut 23. The length of the pin 18 between the shoulder 20 and the cap 19 is sufficient to provide a neat working fit for the head 17 without cramping the same when the nut 23 is set up hard against the bed plate 10 to clamp the pin 18 fixedly in position. The pivot pin 18 forms the working axis for the eccentric head 17. The throw of the eccentric as transmitted to the jaw 8 is always the same. The forward position of the jaw 8 is regulated by the adjustment of the pin 18 in the slot 21. This adjustment is manually arranged by loosening and clamping the nut 23 in a manner similar to setting a pivot pin in mechanism of like character.

The head 17 is provided with upstanding lugs 24, 24, between which is pivotally secured a hand lever 25, a pivot pin 26 being provided for that purpose. It is by the manual manipulation of the lever 25, the operative direction of movement whereof is

illustrated by the arrow in Fig. 1 of the drawings, that the eccentric head 17 is rotated on the pin 18 to advance the jaw 8 in the direction of the jaw 7, clamping therebetween the book A and back B.

To form a rest for the book A when placed between the jaws 7 and 8, preliminary to moving the same into clamping position, there is provided a shelf plate 27. The plate 27 is slidably mounted upon the bed plate 10, and is provided with rearward guide extensions 28, 28 adapted to fit within shallow grooves 29, 29 formed in the bed plate 10 to operate as guides for the extensions 28, 28. To regulate the position of the plate 27, and to set the same, there are provided screws 30, 30, held in thread engagement with the bed plate 10 in the grooves 29, the heads of which screws fit the sides of slots 31, 31 with which the said extensions are provided.

The presser bar 9 is a removable member. There are a plurality of the presser bars 9 formed of various widths and thicknesses to accommodate a variety of the books handled. They are formed from bar metal, as seen in Figs. 2 to 4 inclusive, of the drawings. They are held in position by vise jaws 32 and 33. The jaw 32 is integrally formed with guide blocks 34 provided at each end of the said jaw 32, and guidably fitted in grooves 35, 35 formed in each of the standards 11, 11. The jaw 33 is shortened, as seen in Fig. 6 of the drawings, and is guided between the inner ends of the blocks 34, 34, and is supported, and drawn toward the jaw 32, by a bolt 36. The bolt 36 is extended through perforations in both jaws 32 and 33, and has a screw threaded end section to hold a nut 37. The upper edge of the jaw 32 is rabbeted, as seen in Figs. 2 to 4 inclusive, of the drawings, to form a head rest for the presser bar 9.

Under each of the blocks 34 is extended a foot 38 projected from each end of the cross bar 39 of a lever 40. Formed on the cross bar 39 are trunnions 41, 41 extended into suitable sockets formed in the standards 11, 11. At the outer and free end of the lever 40 is a sector-shaped member 42 provided to receive a circular shaped plunger 43, which is extended through and held in guided relation by a circular slot 44 formed in the bed plate 10.

The lever 25 is provided with a curved extension 45 which rests upon the upper edge of the circular plunger 43. The lever 40 is maintained in the raised position where the member 42 rests against the under side of the bed plate 10 by a spring 46. The machine is secured to the bench or table by lag screws 47, 47, or other suitable devices.

The operation of the machine is as follows: The cover B of the book A is first bent to the desired shape, and the back edge of the book dressed with glue. The cover B is then placed in position upon the book, and both back and book placed between the jaws 7 and 8 of the machine to rest upon the plate 27. This placement of the book may be accomplished by the operator with one hand. While one hand of the operator is employed in steadying the book between the jaws 7 and 8, the other hand grasps the lever 25 and moves the same in the direction shown by the arrow in Fig. 1 of the drawings. This movement is continued until the jaw 8 is brought into holding contact with the book A. The continued movement of the lever 25 in the direction of the arrow shown in Fig 1 is now accompanied or followed by a downward pressure on the said lever in the direction of the arrow shown in Fig. 3 of the drawings. At the completion of the rotation horizontally of the lever 25 the same will have been depressed to the position shown in Fig. 4 of the drawings. The double action herein described has resulted in advancing the jaw 8 to clamp the book A and cover B rigidly between the said jaw 8 and the jaw 7, while by depressing the lever 40 the presser bar 9 has been raised against the under or back edge of the book. This double movement produced by the simultaneous or consecutive action of the eccentric head 17 and the lever 40 upon the jaw 8 and presser bar 9 respectively, forces the cover B upon the book A, and holds the same under heavy pressure. Then, at the expiration of sufficient interval, indicated by experience, wherein to allow the glue to set, the lever 25 is moved to the position shown in Figs. 1 and 2 of the drawings, when the book A and its glued cover B are raised from engagement and deposited in the drying room. To vary the arrangement of the machine and permit the gluing of books of various thicknesses, the nut 23 on the bolt 22 is eased. The glued book is then placed between the jaws 7 and 8 upon the plate 27. The jaw 8 is then moved against the interposed book while the lever 25 is held in the position shown in Fig. 1 of the drawings. The jaw, when thus moved, carries the pivot pin 18 longitudinally in the slot 21. When the adjusted position is thus obtained, the nut 23 is screwed up on the bolt 22 to hold the pin 18 rigidly in the adjusted position. The presser bar 9 which, has before been used is now substituted by a bar adapted to the thickness of the new book for which the adjustment is being made. The substitution of one presser bar 9 for the other having been accomplished, the machine is in position to operate on the new book. It will be thus seen that the adjustment of the machine for operation upon books of various thicknesses is simply and readily effected.

Having thus described our invention, what

we claim as new and desire to secure by Letters Patent is:—

1. A bookbinder's gluing press, comprising a bed-plate having a transverse slot formed therein; a stationary jaw formed on said bed plate beside said slot, said jaw extending above the upper surface of said bed-plate; a movable jaw plate mounted on said bed plate in guided relation therewith and arranged to move toward and away from said stationary jaw; a vertically reciprocating vise disposed below said slot; a removable presser bar held between the jaws of said vise; means for reciprocating said movable jaw plate; and means for reciprocating said vise.

2. A bookbinder's gluing press, comprising a bed plate having a transverse slot formed therein; a stationary jaw formed on said bed plate beside said slot, said jaw extending above the upper surface of said bed plate; a movable jaw plate mounted on said bed plate in guided relation therewith and arranged to move toward and away from said stationary jaw; a presser bar disposed below said slot; means for reciprocating said movable jaw plate; and means for reciprocating said presser bar.

3. A bookbinder's gluing press, comprising a bed plate having a transverse slot; a stationary jaw formed thereon and extended above the surface of said bed plate; a movable jaw plate mounted on said bed plate in guided relation therewith; a reciprocating vise disposed in line with and below said transverse slot; a removable presser bar resting between the jaws of said vise; means for clamping said jaws upon said presser bar; a lever to lift said vise pivotally mounted in the supporting frame of said bed plate; a spring to raise the long end of said lever to depress said vise; and a reciprocating mechanism for said movable jaw plate.

4. A bookbinder's gluing press, comprising a bed plate having formed therein a transverse slot; a stationary jaw formed on said bed plate in juxtaposed relation to said slot; a movable jaw plate slidably mounted on said bed plate, said jaw plate having formed therein an elongated slot; a horizontal lever pivotally mounted on said bed plate and extended through said elongated slot, said lever having a cam formed thereon and disposed in said elongated slot to reciprocate the said movable jaw plate when and as the said lever is horizontally rotated; a vertically reciprocating vise disposed below said slot; a removable presser bar held between the jaws of said vise; and means for reciprocating said vise.

5. A bookbinder's gluing press, comprising a bed plate having a transverse slot formed therein; a stationary jaw formed on said bed plate beside said slot, said jaw extending above the upper surface of said bed plate; a movable jaw plate slidably mounted on said bed plate, said jaw plate having formed therein an elongated slot; a horizontal lever pivotally mounted on said bed plate and extended through said elongated slot, said lever having a cam formed thereon and disposed in said elongated slot to reciprocate the said movable jaw plate when and as the said lever is horizontally rotated; a vertically reciprocating vise disposed below said slot; a removable presser-bar held between the jaws of said vise; a vertically reciprocating lever for raising and lowering the said vise; a supporting plate slidably mounted on said bed plate to extend across the said transverse slot to form a stationary rest and guide for the cover of the book to be glued; and means for holding the said plate in fixed adjusted position.

6. A bookbinder's gluing press, comprising a bed plate having a transverse slot formed therein; a stationary jaw formed on said bed plate beside said slot, said jaw extending above the upper surface of said bed plate; a movable jaw plate slidably mounted on said bed plate, said jaw plate having formed therein an elongated slot; a horizontal lever pivotally mounted on said bed plate and extended through said elongated slot, said lever having a cam formed thereon and disposed in said elongated slot to reciprocate the said movable jaw plate when and as the said lever is horizontally rotated; a vertically reciprocating vise disposed below said slot; a removable presser bar held between the jaws of said vise; a vertically reciprocating lever for raising and lowering the said vise; a supporting plate slidably mounted on said bed plate to extend across the said transverse slot to form a stationary rest and guide for the cover of the book to be glued; means for holding the said plate in fixed adjusted position; and means operatively connecting said rotary lever and said vertically reciprocating lever to operate the same in timed relation.

7. A bookbinder's gluing press, comprising a bed plate having a transverse slot formed therein; a stationary jaw formed on said bed plate beside said slot, said jaw extending above the upper surface of said bed plate, a movable jaw plate slidably mounted on said bed plate, said jaw plate having formed therein an elongated slot; a horizontal lever pivotally mounted on said bed plate and extended through said elongated slot, said lever having a cam formed thereon and disposed in said elongated slot to reciprocate the said movable jaw plate when and as the said lever is horizontally rotated; a vertically reciprocating vise disposed below said slot; a removable presser bar held between the jaws of said vise; a vertically reciprocating lever for raising and lowering the said vise; a supporting

plate slidably mounted on said bed plate to extend across the said transverse slot to form a stationary rest and guide for the cover of the book to be glued; means for holding the said plate in fixed adjusted position; a curved member horizontally disposed in the path of said lever; and a vertically disposed plunger slidably mounted in said bed plate to rest upon the said reciprocating lever, said plunger being disposed in the path of said foot member to be depressed thereby when said lever is rotated.

8. A bookbinder's gluing press, comprising a bed plate having a transverse slot formed therein; a stationary jaw formed on said bed plate beside said slot; said jaw extending above the upper surface of said bed plate; a movable jaw plate slidably mounted on said bed plate, said jaw plate having formed therein an elongated slot; a horizontally disposed cam member pivotally mounted in said bed plate within said elongated slot; a lever handle pivotally mounted upon said cam member adapted to rotate the same; a vertically reciprocating vise disposed below said slot; a removable presser bar held between the jaws of said vise; a vertically reciprocating lever for raising and lowering the said vise; a curved member formed on said lever connected with said cam, said member being extended horizontally; and a vertically disposed plunger slidably mounted in said bed plate to rest upon the said reciprocating lever, said plunger being disposed in the path of said curved member to be depressed thereby when said lever is rotated.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

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BEN F. NEBERGALL.
GEORGE F. OHEIM.

Witnesses:
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A. HOMANN.