

C. THIEM.
 DEVICE FOR BINDING PAPER SHEETS.
 APPLICATION FILED JULY 12, 1911.

1,026,006.

Patented May 14, 1912.

2 SHEETS-SHEET 1.

FIG. 1.

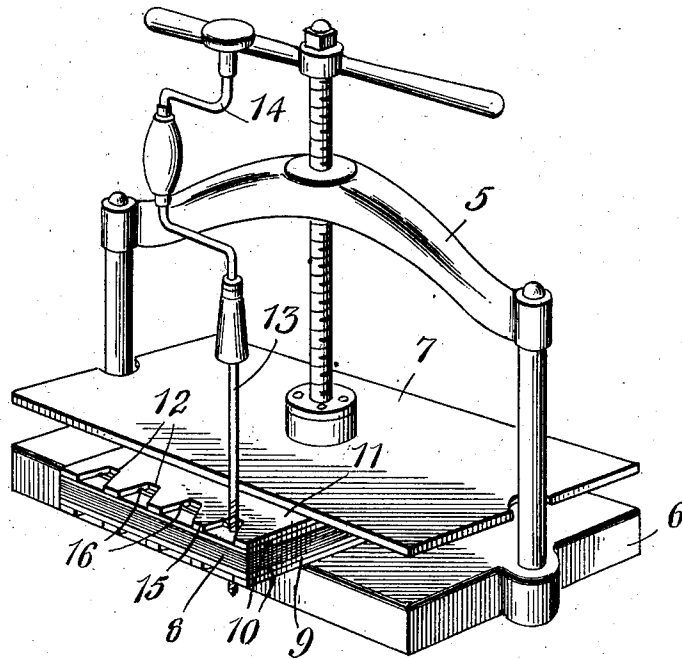
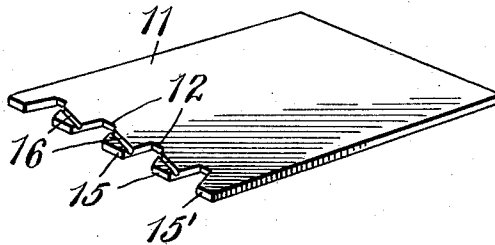


FIG. 3.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

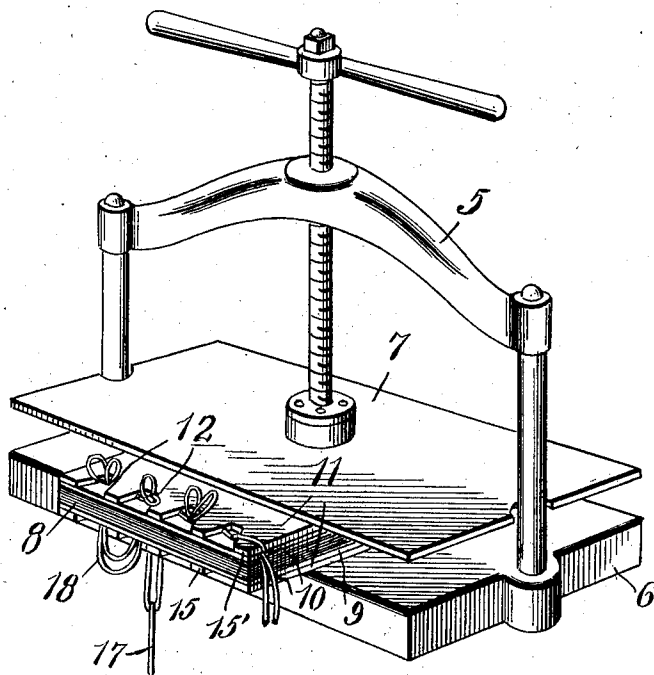
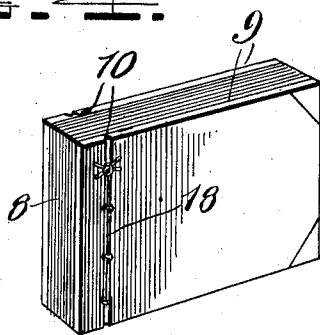


Fig. 1.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR BINDING PAPER SHEETS.

1,026,006.

Specification of Letters Patent.

Patented May 14, 1912.

Application filed July 12, 1911. Serial No. 638,098.

To all whom it may concern:

Be it known that I, CHARLES THIEM, a citizen of the United States, residing at Sandusky, in the county of Erie and State

of Ohio, have invented certain new and useful Improvements in Devices for Binding Paper Sheets, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to the art of book binding and has for its object to provide improved means whereby any number of sheets or leaves may be easily, quickly and securely bound.

Another object of the invention resides in the provision of a presser plate of novel form adapted to be arranged upon one of the covers between which the leaves are disposed and to be engaged by the pressure plate of an ordinary copy press, said plate being of such form as to permit of the easy and quick threading of the binding cord.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view illustrating the use of my invention and showing one step in the binding operation; Fig. 2 is a similar view showing the next step in the binding of the leaves or sheets; Fig. 3 is a detail perspective view of one of the presser plates; and Fig. 4 is a similar view showing the sheets completely bound.

In carrying out my invention, I utilize the ordinary letter copy press 5 comprising the base 6 and the movable pressure plate 7.

The leaves or sheets 8 which it is desired to bind together are first assembled, and the comparatively stiff covers 9 are arranged upon the faces of the stack of sheets. These covers may be made of paper, pulp board or composition, and are scored or weakened as indicated at 10 adjacent to one of their ends to provide a hinge. After the paper sheets have thus been arranged between the covers and are ready to be bound, the metal plate 11 of proper size is placed upon each of the covers 9. Each of these metal plates is provided in one of its ends with a plurality of spaced, substantially V-shaped notches 12 which are of sufficient depth to disclose portions of the score 10 which forms the hinge in the cover. The whole is now

placed between the base of the copy press and the pressure plate 7 thereof as shown in Fig. 1, and said plate is adjusted and moved downwardly upon the upper plate 11 to press the paper sheets 8 which are arranged between the covers 9. The presser plate 11 protects the cover and the sheets and provides a rigid unyielding surface for engagement by the pressure plate 7 of the copy press. After the sheets have thus been pressed an ordinary carpenter's boring bit 13 is employed, said bit being fixed to the usual brace 14. By means of the bit 13 holes are bored through the covers 9 and the paper sheets between the same. These holes extend through the scores 10 of the covers, and the boring operation is started by placing the point of the bit in the inner ends of the notches 12 in the plate 11, thus insuring the proper spacing of the openings or holes which are formed through the pressed sheets at the hinges of the cover boards. It will be obvious that this operation may be very easily and quickly accomplished and the pressed sheets provided with the openings to receive a suitable binding cord. It will be seen from reference to the drawing that the notched end of the plate 11 and the sheets and covers therefor project beyond the edge of the base and pressure plate of the copy press so that all danger of the bit striking the base of the press after passing through the sheets is avoided.

In order to facilitate the binding of the sheets, the bottom faces of the tongues 15 which are formed on the end of the presser plates by the provision of the notches 12, are provided with the angularly extending grooves 16. These grooves provide means whereby the threading needle 17 shown in Fig. 2 may be readily inserted between said tongues and the cover board, and the thread drawn beneath said tongues and moved into the groove or depression which is provided by scoring the cover as previously described.

In binding the sheets, the binding cord 18 is doubled and looped around one of the tongues 15' at the longitudinal edge of the plate 11. The needle 17 is then passed downwardly through the first of the openings in the sheets and covers and the cord drawn therethrough. The needle is next inserted into the adjacent opening beneath the pressed sheets and the binding cord

drawn upwardly therethrough. The threading needle is now passed between the top cover board shown in Fig. 2 and the intermediate tongue 15 of the plate 11, said needle being inserted into the groove 16 of said tongue. The outer end of this groove is located adjacent the end edge of the tongue so that the point of the needle may be readily grasped and pulled therethrough without engaging the next adjacent tongue. After the binding cord has been drawn taut, it is moved beneath said plate into the hinge groove of the cover board. The threading operation is then continued as previously described, the needle being drawn downwardly through one of the openings and upwardly through the next adjacent opening. After threading the binding cord in this manner from right to left, the operator reverses the operation and threads from left to right, passing the thread under the tongues 15 which were previously skipped. When he again reaches the point from which the threading operation was started and draws the needle upwardly through the opening at the longitudinal edges of the sheets, the pressure of the plate 7 of the copy press on the plate 11 is released and the plate 11 removed. The ends of the binding cord are then securely knotted together.

In the manner above described, sheets of any number or thickness may be quickly and securely bound at very small cost. The boring of the holes or openings through the covers and paper sheets requires the greatest length of time to complete, but this is also comparatively small in view of the long and tedious process at present in vogue. The plates 11 are provided in various sizes and with any number of notches 12, in accordance with the size of the sheets to be bound.

From the foregoing it is thought that the

construction and operation of my improved binding device will be readily understood. By its use, voluminous typewritten records and other matter which it is desired to preserve may be quickly, neatly and inexpensively bound together thereby obviating their possible loss. I desire that it be further understood that many modifications may be resorted to in carrying out my invention, without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. An attachment for a press for holding books while being sewed, comprising a plate with one edge substantially as long as the portion to be sewed, said plate having notches along its edge to register with holes in the book through which the sewing threads pass, the tongues between said notches being grooved on the under side to allow of passing the sewing needle from one notch and hole to the next.

2. An attachment for a press for holding books while being sewed, comprising a plate with one edge substantially as long as the portion to be sewed, said plate having notches along its edge to register with holes in the book through which the sewing threads pass, the tongues formed between said notches being provided upon the under side with grooves extending at an angle thereacross and opening at the inner end of one notch and the outer end of the adjacent notch to allow of passing the sewing needle from one notch and hole to the next.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

CHARLES THIEM.

Witnesses:

JNO. DEISE,

FRED HERBEL.