T. FAIFER.
TEMPORARY BINDER.

Patented Apr. 7, 1896. No. 557,788. Witnesses.

## United States Patent Office.

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## TEMPORARY BINDER.

SPECIFICATION forming part of Letters Patent No. 557,788, dated April 7, 1896.

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To all whom it may concern:

Be it known that I, Tony Faifer, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Temporary Binders, of which the following is a specification.

My invention relates to an improvement in the class of temporary binders in which a back, connecting covers between which the papers or the like to be bound are confined, has provided upon it the binding-stick carrying the filing-pins for penetrating the papers

to be bound, and the clamp-stick for coöperating with the binding-stick to confine the

papers.

The objects of my improvement are to adapt the binder to permit sheets to be bound to be conveniently inserted and bound at any desired place or places between other sheets already filed in the binder; to adapt the binding-stick to be held rigidly in upright position for holding the sheets the more conveniently for reference and to be turned over to lie flat against the inside of one of the covers for convenience in the operation of binding, and to improve the device in matters of detail.

In the accompanying drawings, Figure 1 shows my improved binder, by a broken perspective view, in open condition. Fig. 2 is an enlarged broken sectional view, diagrammatic in its nature, taken at the line 2 on Fig. 1 and viewed in the direction of the arrow; and Fig. 3 is a similar view taken on the same line as Fig. 2, but showing the parts in relative positions other than those shown

in the second figure.

A A' are the covers of the binder connected 40 by a back A<sup>2</sup>, which should be stiff. On the back A<sup>2</sup>, adjacent to the cover A, is hinged or flexibly attached the binding-stick B, which may be formed of wood, metal, or other suitable material, and which should, like all other 45 parts of my improved mechanism, be as light as possible consistent with the required strength of the parts. At intervals, preferably equal, on the binding-stick are provided holes r for receiving the pins C, (shown as three 50 in number,) though the number of holes may be one or more without departure from the spirit of my invention. In each hole a pin C is loosely supported, so that it may be slipped lengthwise in and out, each pin being headed

at one end to afford a stop against slipping 55 through the binding-stick, and screw-threaded toward its opposite end, which is preferably pointed. On the binding-stick, preferably at each end, is provided a hook q to engage an eye o, provided on the back A<sup>2</sup> in 60 suitable position to be engaged by the hook when the binding-stick is in upright position.

C' is the clamp-stick, provided with holes r' to coincide with those in the binding-stick and through which pass the pins C, carrying 65 nuts p on their threaded portions. To protect the sharp points of the pins, I provide a shield-stick D, hinged on the back A<sup>2</sup> adjacent to the cover A', in proper position to receive the pin-points in holes  $r^2$  provided in 70 the stick to coincide with the pins, and this stick, like the binding-stick B, carries, preferably at each end, a hook q' to engage an eye o' in suitable position on the back A<sup>2</sup> to be engaged by the hook when the shield-stick 75 is in its upright position, wherein it shields the pin-points, to uncover which, preparatory to binding, the hooks q' are disengaged from the eyes o' to permit the shield-stick to be turned down.

To bind sheets S (papers, maps, and the like) with my improved device, the covers A A' are opened, the hooks of the binding-stick are disengaged from their eyes to permit the binding-stick to be laid flat against the cover 85 A, so that the screw-pins C project upward, as represented by Fig. 2, when the nuts p are turned off the pins to permit removal of the clamp-stick C', and the shield-stick is released and turned out of the way. Then the sheets 90 are filed by passing them over the pins, which are caused to penetrate each sheet near its edge. To bind any number of sheets thus filed, the clamp-stick C' is adjusted at its holes upon the pins, and the nuts are then 95 screwed on the latter against the clamp-stick to clench the sheet or sheets between it and the binding-stick. By turning the bindingstick up on edge and fastening it in the position shown in Fig. 3 (whereby, of course, the 100 clamp-stick is turned into a similar position) the bound sheets are sustained like the sheets in a bound book to adapt them to be readily turned.

My improved construction, moreover, enables the binding of sheets readily between others. When, for example, it is desired to insert a sheet between others already confined

in my temporary binder, the binding-stick is retained in its upright position and the clampstick either removed or freed and sprung out at one end, while the shield-stick should be 5 laid over against the cover A', as shown in Fig. 3, to uncover the pin-points. Then the pin at the upper end of the device is freed and is shoved backward through the bindingstick and out of the clamp-stick till the point 10 of the pin is withdrawn from the sheet, as at x in Fig. 3, adjacent to which it is desired to make the insertion, when the sheet to be inserted is slipped over the pointed end of that pin, which is thereupon passed through the 15 perforations of the sheets which have been preparatorily thus freed and through the coincident hole in the clamp-stick, whereupon the nut is applied to the screw-pin and tightened. Thereupon the intermediate pin is 20 withdrawn in the same manner to permit the insertion into the path of its point of the corresponding portion of the sheet to be inserted, when that pin is passed through it and through the coincident perforations in the prepara-25 torily-freed sheets, as well as the coincident hole in the clamp-stick, which is then there fastened by tightening the nut on that screwpin, and, finally, the sheet being thus inserted is introduced toward its lower end be-30 tween the filed sheets on withdrawing in the manner described the lower pin and passing it through the new sheet and coincident perforation in the loosened sheets and clampstick and thereafter applying the nut on that 35 pin. Of course the described operations may be performed in any desired order as to the withdrawal of filing-pins, and for each pin provided there will be one such operation.

What I claim as new, and desire to secure

40 by Letters Patent, is—

1. In a temporary binder, the combination with the covers and the back connecting them, of a perforated binding-stick flexibly connected with said back, a screw-threaded filing-45 pin loosely contained in each perforation of said binding-stick and provided with a nut, and a perforated clamping-stick through which each said filing-pin passes and removably confined thereon by the nut to coöperate 50 with said binding-stick, substantially as described.

2. In a temporary binder, the combination with the covers and the back connecting them, of a binding-stick flexibly connected with said 55 back and provided with holes, screw-threaded filing-pins loosely contained in said holes and carrying nuts, and a clamping-stick provided with holes to receive said filing-pins and removably confined on said pins by the nuts to 60 coöperate with said binding-stick, substantially as described.

3. In a temporary binder, the combination with the covers and the back connecting them, of a binding-stick hinged to said back and 65 provided with holes, means for releasably securing the binding-stick in upright position, screw-threaded headed filing-pins loosely con-

tained in said holes and carrying nuts, and a clamping-stick provided with holes to receive said filing-pins and removably confined on 70 said pins by the nuts to coöperate with said binding-stick, substantially as described.

4. In a temporary binder, the combination with the covers and the back connecting them, of a binding-stick hinged to said back and 75 provided with holes, hooks and eyes on the binding-stick and cover for releasably securing the binding-stick in upright position, screw-threaded headed filing-pins loosely contained in said holes and carrying nuts, and a 80 clamping-stick provided with holes to receive said filing-pins and removably confined on said pins by the nuts to cooperate with said binding-stick, substantially as described.

5. In a temporary binder, the combination 85 with the covers and the back connecting them, of a binding-stick hinged to said back and provided with holes, means for releasably securing the binding-stick in upright position, screw-threaded headed and pointed filing- 90 pins loosely contained in said holes and containing nuts, a clamping-stick provided with holes to receive said filing-pins and removably confined on said pins by the nuts to coöperate with said binding-stick, and a shield-stick 95 for shielding the points of the filing-pins, sub-

stantially as described.

6. In a temporary binder, the combination with the covers and the back connecting them, of a binding-stick hinged to said back and roc provided with holes, means for releasably securing the binding-stick in upright position screw-threaded headed and pointed filingpins loosely contained in said holes and containing nuts, a clamping-stick provided with ros holes to receive said filing-pins and removably confined on said pins by the nuts to coöperate with said binding-stick, and a shield-stick hinged to said back for shielding the points of the filing-pins and provided with means for 110 releasably securing it in upright position, substantially as described.

7. A temporary binder comprising, in combination, the covers A, A' and back A<sup>2</sup> connecting them, a binding-stick B hinged to the 115 back and provided with holes, means on the binding-stick and back for releasably securing the binding-stick in upright position, screw-threaded headed and pointed filingpins Cloosely contained in said holes and car-12c rying nuts p, a clamping-stick C' provided with holes to receive said filing-pins and removably confined on said pins by the nuts to coöperate with said binding-stick, a shieldstick D hinged to said back and provided with 125 holes for the points of the filing-pins, and means for releasably securing the shield-stick in upright position, the whole being constructed and arranged to operate substantially as described.

TONY FAIFER.

In presence of— M. J. Frost, M. S. MACKENZIE.