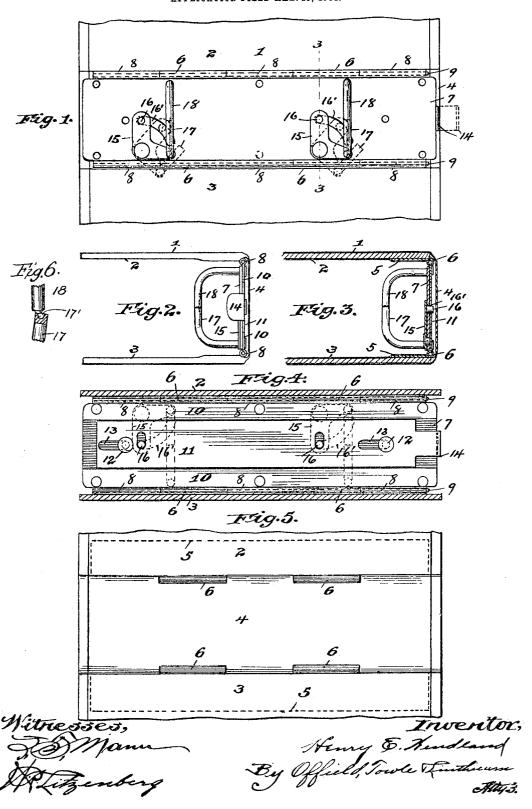
H. E. WENDLAND.
TEMPORARY BINDER.
APPLICATION FILED MAR. 19, 1904.



## UNITED STATES PATENT OFFICE.

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## TEMPORARY BINDER.

No. 798,854.

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To all whom it may concern:

Beit known that I, HENRY E. WENDLAND, of Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Tem-5 porary Binders, of which the following is a specification.

This invention relates to that class of temporary binders for binding together in book form a number of loose leaves, and more par-10 ticularly to a binder wherein a back-strip with impaling-prongs is provided with a detachable cover.

Among the salient objects of the present invention are to provide a temporary binder of 15 the character referred to with a flat back-piece for carrying the impaling-prongs and arranged to be detachably secured to cover members therefor, to provide cover members with means for readily attaching them to said back-20 strip and in such manner that a perfectly smooth and flat back edge is secured, said attaching means also constituting the hingejoints upon which said cover members swing, to provide impaling-prongs one member of 25 each pair of which is adapted to be turned simultaneously with the other upon a vertical axis by means of a thumb-piece for the insertion or removal of loose leaves, and in general to provide a cheap, durable, and con-30 venient binder of the character referred to.

The invention will be readily understood from the following description, reference being had to the accompanying drawings, in which-

Figure 1 is a plan view of the binder with 35 covers open and showing in dotted lines the open position of the impaling-prongs to receive the leaves. Fig. 2 is an end view with a part broken away. Fig. 3 is a sectional view 40 on line 3 3, Fig. 1, with parts broken away. Fig. 4 is a back view with the cover at the back broken away to expose the back of the backstrip, and Fig. 5 is a view of the cover detached with parts broken away to diminish the size of the figure. Fig. 6 is a detail view showing the engaging ends of the impalingprongs.

Referring to the drawings, 1 designates as a whole a binder-cover comprising cover mem-50 bers 2 and 3, made of stiff material in the present instance, though, of course, they could be made of flexible material, if desired, the flexible back-strip 4 connecting the cover shown forming an outer covering for the 55 cover members.

5 5 designate two hinge-strips mounted in the adjacent edges of the cover members and each provided with a pair of pintle-receiving sockets 6, said hinge-strips being flat and of 60 practically the same length as the cover members and forming a perfectly straight and smooth back at the edges of the cover members adjacent the back-strip 4.

7 designates a binder-strip provided at its 65 edges with pintle-receiving sockets 8, adapted to register with the sockets 6 to receive the pintles 9 9, securing the back members thereto. Said sockets 8 are in the present construction formed on narrow strips 10, riveted 70 or otherwise secured to the back of the binderstrip 7, as shown in Fig. 4.

11 designates a slide-plate mounted on the back of the back-strip 7 between the socketstrips 10 by means of the rivets 12, working 75 in slots 13, said slide-plate being provided at one end with a thumb-piece 14 at the end of the back or binding strip 7.

15 15 designate two flat bell-cranks pivotally mounted upon said binder-strip 7, one 80 arm of each having operative connections with the slide-plate 11 by means of a stud 16, carried by said arm and working in a curved slot  $16^7$  through the back-strip  $\overline{7}$  and arranged concentric with the pivotal axis of said bell- 85 Upon the other arms of said bellcranks 15 15 are two impaling-prongs 17 17, which register with and have an end engagement with other impaling-prongs 18 18, rigidly mounted upon the back-strip or binder 90 member 7, said prongs 17 17 in the construction shown being provided with shallow sockets 17', which fit over the ends of the fixed prongs and by reason of the position of the vertical axis on which said prongs move come 95 into engagement with the ends of the prongs 18 18 with a snap effect. This is caused by the fact that the front edge of the end of the moving prong as it comes into contact with the end of the stationary prong is engaged by 100 the little stud on said stationary prong, (see Fig. 6,) and by increased pressure said moving prong is pushed by the stationary prong with a snap, so that the stud enters the socket in the moving prong as said prongs come into 105 registering engagement with each other, which holds them together independently of the slidemembers 2 and 3 and in the construction | plate connection. It is obvious that said slideplate might be provided with a construction which would retain the prongs in closed engagement. It will thus be seen that the sliding of slide-plate 11 by means of the thumbpiece 14 operates to move said bell-crank levers upon their axes, which carries the impaling-prongs 17 17 out of contact with the prongs 18 18, as clearly indicated in dotted lines, Fig. 1, thereby permitting the insertion

10 or removal of the loose leaves.

The flat hinge-strips 5 5 being secured within the adjacent edges of the cover members, as they are, and having the pintle-sockets projecting on the inner side of the cover mem-15 bers makes it possible to hinge the binder member 7 between said hinge-strips, so that a perfectly smooth hinge-joint comes at the corner or edge of the binder member, thereby avoiding the rough effect usually found at 20 the edges of the cover members or on the back-strip of the binder by reason of rivets or hinge-joint coming in the middle of the back-strip and also prevents the impalingprongs from indenting the cover members at 25 their back edges by constant wear, and thus causing an uneven and rough surface near the hinged edge of the back or cover members.

It is obvious that changes in the details of construction and arrangement can be made 30 without departing from the spirit of the invention, and I do not, therefore, limit the invention to the details and arrangement shown and described, except in so far as they are made the subject-matter of specific claims.

I claim

1. A temporary binder, comprising in combination a cover provided with pintle-receiving sockets, a binder member provided with pintle-receiving sockets adapted to register 40 with the sockets of said cover, a pintle for said sockets detachably securing said cover to said binder member, stationary impaling-prongs mounted upon said binder member, movable impaling-prongs mounted upon said binder 45 member, a slide member slidably mounted upon said binder member and operatively connected with the lower end of said movable prongs and adapted to bodily move the lower ends of said movable prongs and carry the 50 latter into and out of engagement with the stationary prongs, substantially as described.

2. A temporary binder, comprising in combination a back member, impaling-prongs rigidly mounted thereupon, other impalingprongs movably mounted upon said back member and having an interfitting end-to-end engagement with said stationary prongs, a slide member slidably mounted upon said back member and having operative connection with said 60 movable prongs and adapted to move the latter bodily in the arc of a circle into and out of engagement with said stationary prongs, and cover members secured to said back mem-

ber, substantially as described.

3. A temporary binder, comprising a binder 65 member, impaling-prongs rigidly mounted upon said binder member, other impalingprongs movably mounted upon said binder member and having an interfitting end engagement with said rigidly-mounted prongs, 7° said end construction and arrangement of said prongs being such that they come into engagement with each other with a snap effect which holds them in the closed position, a slide-plate slidably mounted upon said binder 75 member and having operative engagement with said movable impaling-prongs and by means of which the latter may be moved into and out of engagement with said rigidlymounted impaling-prongs, and cover mem- 80 bers mounted upon said binder member.

4. A temporary binder, comprising in combination a pair of cover members, a pair of flat hinge-strips secured within the adjacent edges of said cover members, a binder mem- 85 ber hinged between said hinge-strips and having its upper surface above the hinge-joints, a pair of flat bell-crank levers pivotally mounted upon said binder member and movable laterally over the edge thereof, impaling-prongs 90 rigidly mounted upon said binder member, other impaling-prongs mounted upon the arms of said bell-crank levers and having an endto-end engagement with said rigidly-mounted impaling-prongs, a slide-plate slidably mount- 95 ed upon the under side of said binder member and having operative connection through a slot with said bell-crank levers, by means of which the sliding of said slide-plate operates to swing the movable impaling-prongs out of 100 engagement with the others, substantially as described.

5. A temporary binder comprising a binder member, impaling-prongs rigidly mounted upon said binder member, bell-crank levers 105 pivotally mounted upon said binder member, an impaling-prong mounted upon the end of one arm of each of said bell-crank levers and moving bodily therewith into end-to-end engagement with said stationary prongs, a slide mem- 110 ber slidably mounted upon the under side of said binder member and having operative engagement through slot-and-stud connection with the other arm of each of said bell-crank levers, and cover members mounted upon said 115 binder member, substantially as described.

HENRY E. WENDLAND.

Witnesses:

James W. Ranson, CLAUD O. Brown.