No. 719,674. PATENTED FEB. 3, 1903.

# W. G. & H. S. JONES.

## BINDER.

APPLICATION FILED MAR. 10, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

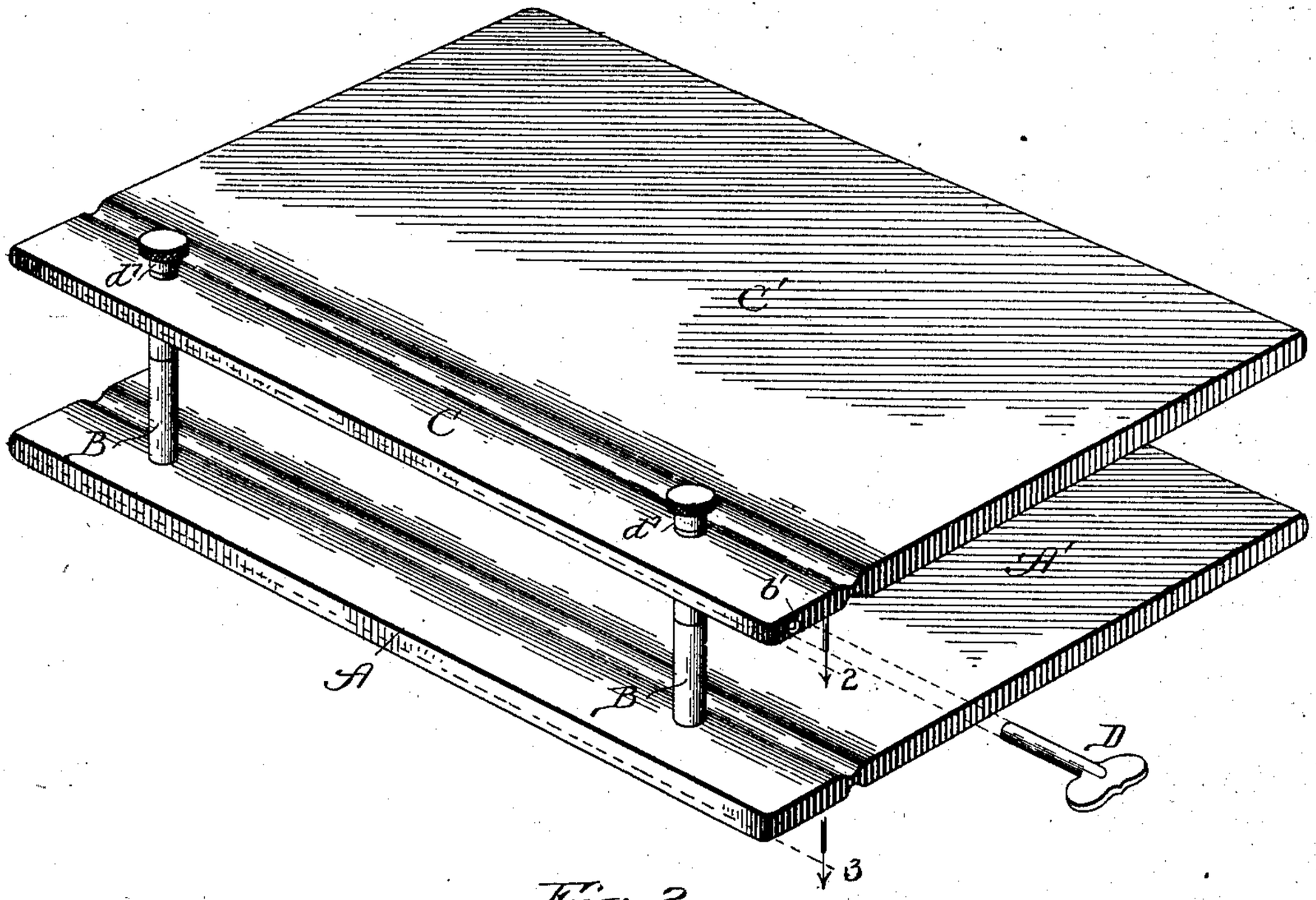



Fig. 2.

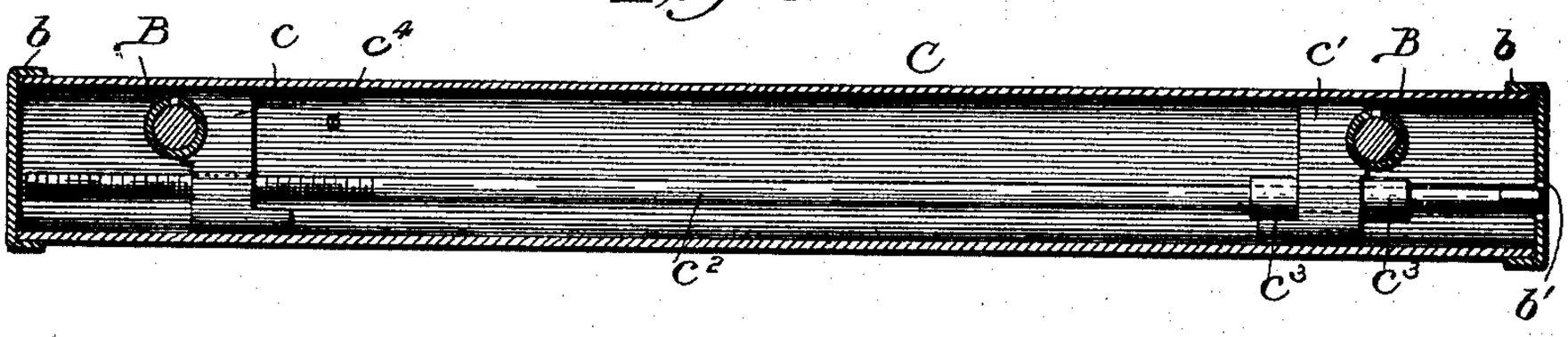
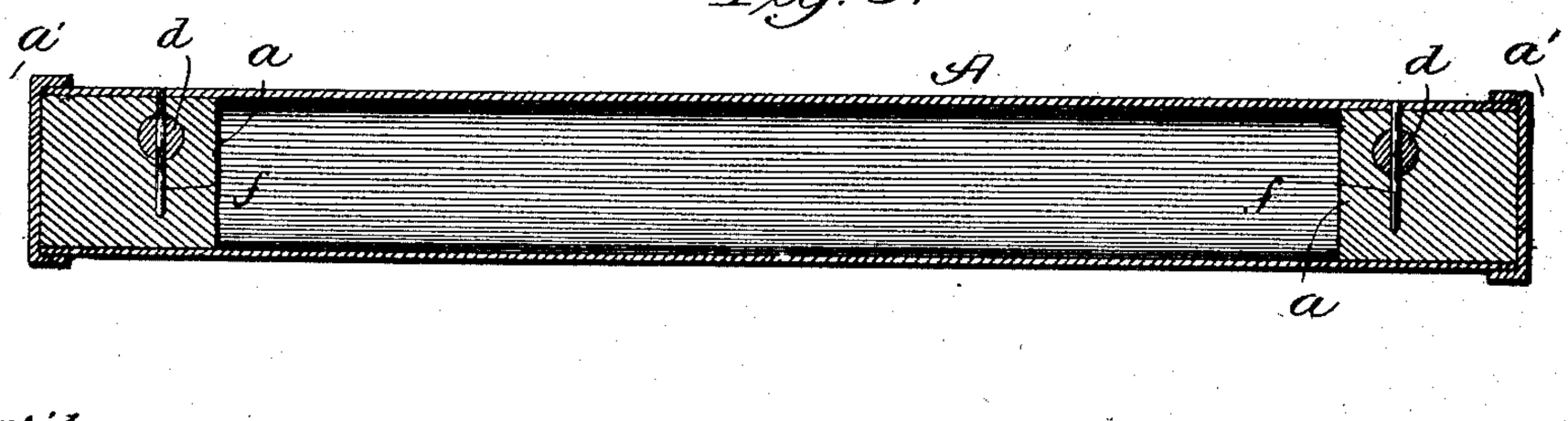



Fig. 3.

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## BINDER.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.

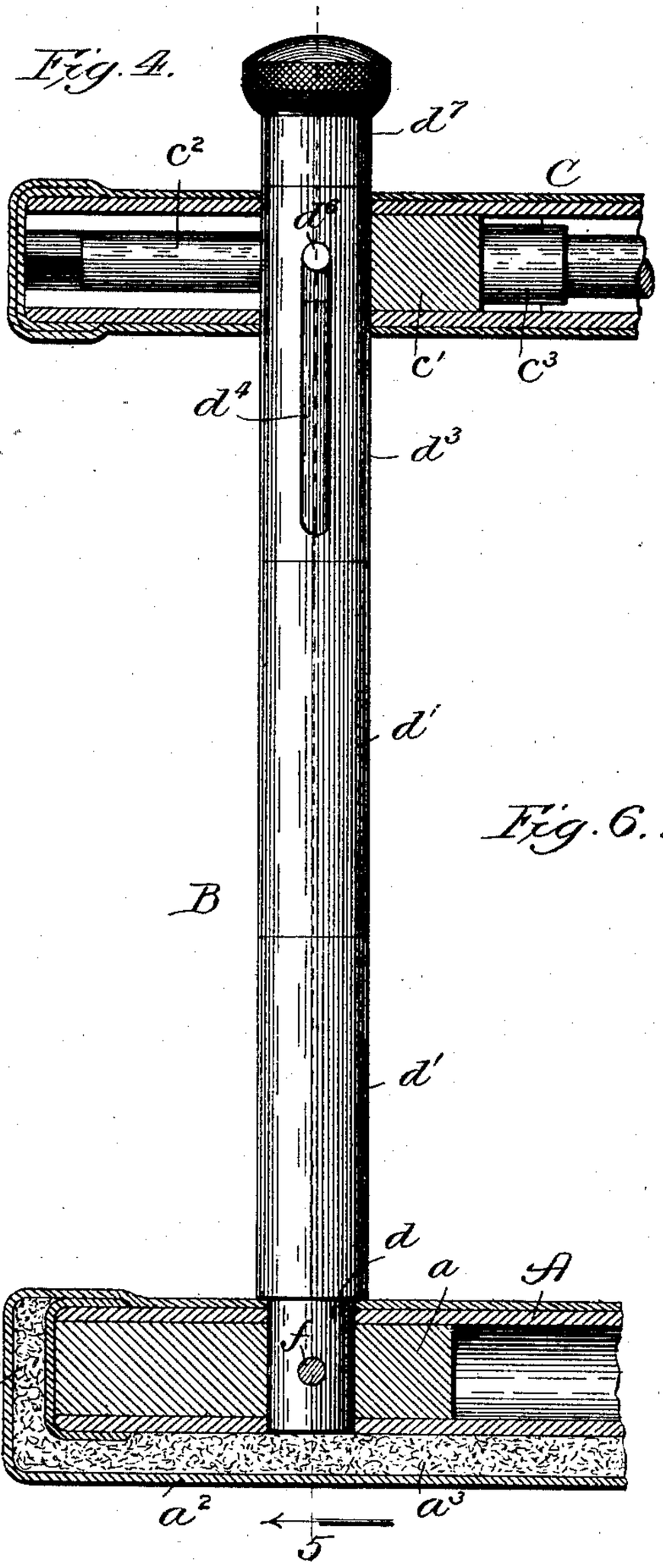



Fig. 6.

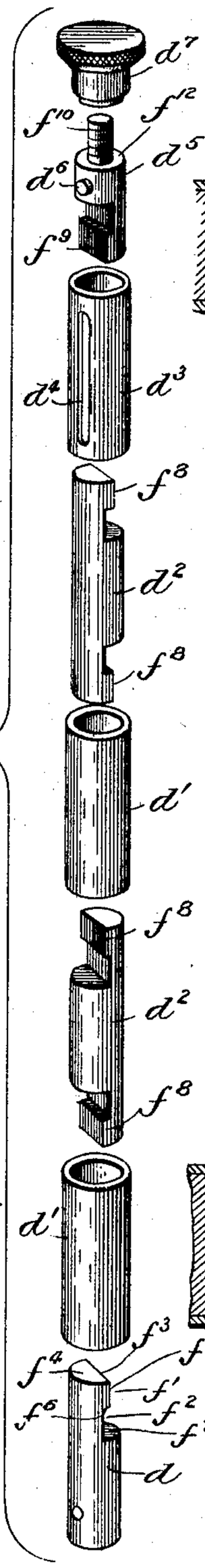
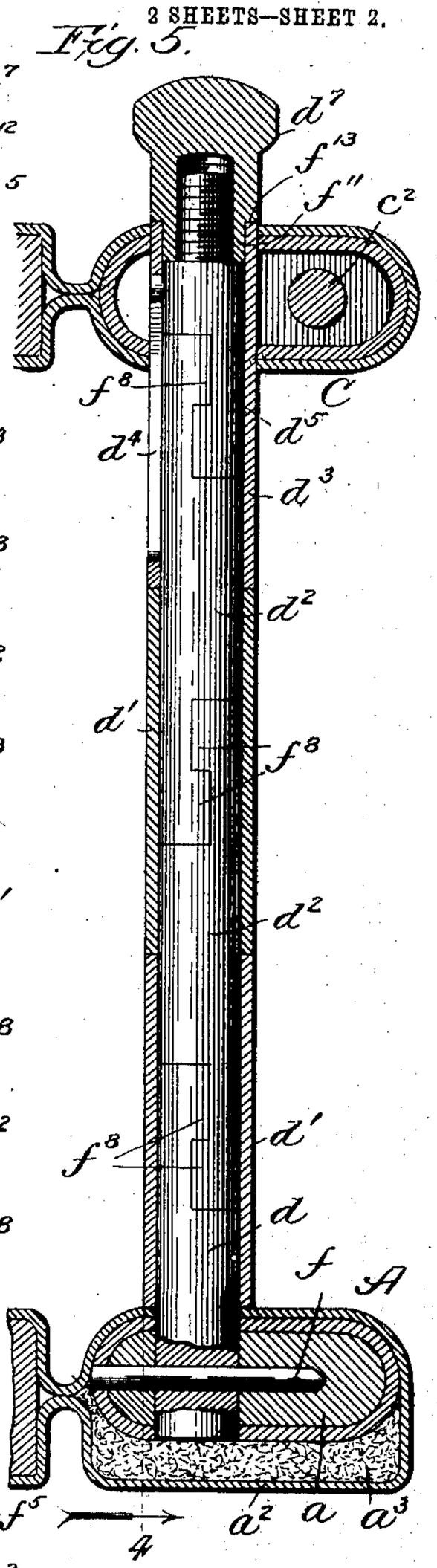



Fig. 5.

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# UNITED STATES PATENT OFFICE.

WILLIAM GIFFORD JONES AND HARRY SLOPER JONES, OF CHICAGO, ILLINOIS.

## BINDER.

SPECIFICATION forming part of Letters Patent No. 719,674, dated February 3, 1903.

Application filed March 10, 1902. Serial No. 97,576. (No model.)

*To all whom it may concern:*

Be it known that we, WILLIAM GIFFORD JONES and HARRY SLOPER JONES, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Binders, of which the following is a specification.

Our invention relates particularly to so-known "transfer-binders," though it be understood that the improved binder herein shown may be used for various purposes.

Our primary object is to provide a binder of improved general construction, particular attention being paid to securing lightness and durability of construction.

Our invention is illustrated in its preferred form in the accompanying drawings, in which—

Figure 1 represents a rear perspective view of the binder embodying our improvements; Fig. 2, a sectional view of the upper clamp-bar employed, taken as indicated at line 2 of Fig. 1; Fig. 3, a sectional view of the lower clamp-bar employed, taken as indicated at line 3 of Fig. 1; Fig. 4, a broken vertical sectional view parallel with the clamping-bars, taken as indicated at line 4; Fig. 5, a broken vertical section taken transversely of the clamping-bars as indicated at line 5 of Fig. 4, and Fig. 6, a view illustrating the parts of an extensible post employed and the manner of connecting the same.

A represents a lower clamping member, with which is connected a lower cover-section; B, binding-posts projecting upwardly from the member A; C, an upper clamping member, with which is connected an upper cover-section C′, and D a key which serves to operate the locking mechanism of the member C.

In the improved construction the clamping members A and C are hollow and of somewhat elongated oval cross-section, as shown in Fig. 5. They are preferably formed from sheet-metal tubing pressed in the proper form by means of suitable dies. The member A is somewhat shorter than the member C and has its ends fitted with plugs $a$ and cap-pieces $a'$. Said member A is covered with leather binding $a^2$, which serves as a hinge connection with the cover-section A′. Interposed between the lower side of the member A and the leather covering $a^2$ is a felt strip $a^3$, which has upturned ends $a^4$, serving as pads for the ends of said member. The upper member C is provided simply with suitable perforations for receiving the posts B and with end caps $b$, one of which is provided with a key-receiving perforation $b'$. Located on adjacent sides of posts B and within the member C are post-engaging locking members $c'$, connected with an actuating rod or stem $c^2$. The rod $c^2$ has threaded connection with a member $c$ and is provided on opposite sides of the member $c'$ with collars $c^3$. The end of the rod $c^2$ adjacent to the perforation $b'$ is squared to receive the key D. The members $c\,c'$ conform to the cross-section of the hollow clamping-bar, in which they are inclosed and slide readily therein. Movement of the member $c$ in one direction is limited by a pin $c^4$.

Each post B comprises a lower stud or member $d$, a series of interchangeable tubes $d'$, a series of interchangeable inner post-sections $d^2$, an upper tubular section $d^3$, provided with a slot $d^4$, an upper inner post-section $d^5$, provided with a laterally-projecting stud $d^6$, and a top member or cap-piece $d^7$. The lower end of the section $d$ is inserted in a perforation adjacent to one end of the member A and extending through the plug $a$, said section being secured in place by a pin $f$. Said member $d$ is of circular cross-section and has substantially one-half of its upper portion cut away at a point $f'$. Adjacent to the lower end of the cut-away portion the member is provided with a transverse recess or slot $f^2$, so that above said recess is formed a laterally-projecting head or flange $f^3$. The member $d$ thus has a flat upper surface $f^4$, lying in a horizontal plane, a flat vertical surface $f^5$ for the flange $f^3$, a horizontal surface $f^6$, constituting the lower wall of the flange $f^3$, and a flat horizontal surface $f^7$, resulting from cutting away the upper portion of the member. Each of the members $d^2$ is provided with similar turned heads $f^8$, either of which is adapted to interlock with the upper end of the section $d$. The upper end of the tubular member $d^3$ receives the member $d^5$, the pin $d^6$ being inserted through the slot $d^4$ after the parts are together. The member

$d^5$ is provided at its lower end with a head $f^9$, adapted to interlock with the upper end of any of the members $d^2$. The member $d^5$ has a reduced upper end $f^{10}$, which is threaded to receive the cap $d^7$. The cap $d^7$ has a reduced lower end $f^{11}$, which bears upon the adjacent surface $f^{12}$ of the member $d^5$, and it also has a shoulder $f^{13}$, which bears upon the upper end of the adjacent tubular member.

The manner of assembling the parts and of using the improved binder will be readily understood from the drawings and the foregoing description. One of the sections $d^2$ is applied to the section $d$, as indicated in Fig. 5, after which a tubular member $d'$ is dropped over the stud thus formed to lock the parts together. When in position, the upper end of the tubular member extends to about the middle of the member $d^2$. As many of the interlocking sections as desired may be employed to make the post of the desired height, the post being completed with the use of the member $d^5$, the detached tube $d^3$, and the cap $d^7$. If desired, the member $d^5$ and attaching member $d^3$ may be applied directly to the member $d$, thus giving the least possible height to the completed post. It will be understood that in applying the member $d^5$ the attached tubular member $d^3$ is raised till the heads of the inner sections are properly interlocked, after which the tubular member is permitted to drop to lock the inner members together. When the posts are properly built up, they act practically as solid integral posts, having smooth cylindrical surfaces which contact with the walls of the perforations of the upper clamping-bar and with the post-engaging members $c$ $c'$. It will be understood that when the rod $c^2$ is turned in one direction the members $c$ $c'$ are turned toward each other, and when said rod is turned in the opposite direction said members are forced to part, thereby bringing them into locking contact with the adjacent surfaces of the posts.

Changes in details of construction within the spirit of our invention may be made. Hence no undue limitation is to be understood from the foregoing detailed description.

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

1. In a binder, the combination of a lower clamping-bar, binding-posts connected therewith, an upper suitably-shaped integral tubular sheet-metal clamping member provided with perforations through which said posts extend freely, said member having closed ends, and means within said upper bar for clamping the same to the posts at any point desired, substantially as and for the purpose set forth.

2. In a binder, the combination of an upper clamping member provided with post-receiving perforations, a lower suitably-shaped integral tubular sheet-metal clamping member having closed ends, binding-posts connected with said last-named member and projecting upwardly therefrom and through the upper clamping member, and means within said upper clamping member for locking it to the posts at any desired position, substantially as and for the purpose set forth.

3. In a binder, the combination of two hollow clamping members formed of flattened metal tubing and having closed ends, one of said members having post-receiving perforations and the other having plugs socketed to receive the lower ends of the posts, posts secured to the lower clamping member at said plugs, and locking means within the upper clamping member for securing said member to said posts at any desired position.

4. In a binder, the combination of a lower clamping member, two posts projecting upwardly therefrom, an upper clamping member provided with post-receiving perforations, two slidable post-engaging members, and an actuating-rod having threaded connection with one of said last-named members and rotatable connection with the other of said last-named members, the last-named connection serving to confine the post-engaging member thereat against longitudinal movement on said actuating-rod.

5. In a binder, the combination of a lower clamping member, two posts projecting upwardly therefrom, an upper clamping member provided with post-receiving perforations, two post-engaging members located on adjacent sides of said posts, and an actuating-rod extending through said last-named members and having threaded connection with one of them and collars confining the other one against longitudinal movement on said rod, for the purpose set forth.

6. In a binder, the combination of a lower clamping member, posts projecting upwardly therefrom, an upper clamping member formed from flattened tubular metal, end caps for said last-named member, one of said end caps being provided with a key-receiving perforation, post-engaging members confined within said last-named clamping member, and an actuating-rod connected with said post-engaging members, for the purpose set forth.

7. In a binder, the combination with suitable clamping members of an extensible post attached to one of said members and projecting through a perforation in the other of said members, said post comprising a lower inner section provided with a transversely-extending flange, a series of interchangeable inner sections provided near their ends with transversely-extending flanges, said flanges being in interlocking engagement, tubular members for locking said inner sections together, and a suitable top section, for the purpose set forth.

8. In a binder, the combination of a lower clamping member, a post-section connected therewith and having at its upper end a laterally-extending flange, a section provided at its ends with two flanges projecting in the

same direction, either of which is adapted to interlock said first-named flange, a tubular member serving to lock said posts together, and a suitable top section, for the purpose set forth.

9. In a binder, the combination of a lower clamping member, a post-section extending upwardly therefrom and provided with a laterally-extending flange, interchangeable post-sections provided near their ends with flanges adapted to interlock said first-named flange, tubular sections for locking the inner sections together, an upper inner section provided at its lower end with a laterally-extending flange, a tubular section slidably connected with said last-named inner section, and a suitable cap-piece connected with the uppermost inner section.

10. In a binder, the combination of a clamping member, a post-section of circular cross-section projecting therefrom and having substantially one-half of its upper portion cut away and a recess at the lower end of the cut-away portion, thereby affording a laterally-extending flange, an inner post-section of circular cross-section similarly cut away and recessed to afford an interlocking flange, a tubular member for locking said parts together, and a suitable cap-piece for binding the parts together, for the purpose set forth.

11. In a binder, the combination of a lower clamping member, a post-section projecting therefrom and provided with a laterally-extending flange, a series of interchangeable inner post-sections of circular cross-section with their end portions cut away and recessed to afford laterally-extending flanges, each of said interchangeable sections having its two flanges extending in the same direction, tubular members for clamping said inner sections together, and a suitable cap-piece for binding the parts together, for the purpose set forth.

12. In a binder, the combination with suitable clamping members, of a post comprising sections having cut-away end portions with lateral projections and adjacent recesses for receiving projections, and means for securing said sections firmly together, thereby affording a rigid built-up post of uniform cross-section, for the purpose set forth.

13. In a binder, the combination with suitable clamping members, of an extensible post comprising sections having cut-away end portions with lateral projections having upper and lower surfaces substantially perpendicular to the post, said sections having, also, recesses adjacent to said projections, whereby a built-up post of uniform cross-section is afforded, and means for securing said sections firmly together, for the purpose set forth.

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HARRY SLOPER JONES.

In presence of—
L. HEISLAR,
ALBERT D. BACCI.