

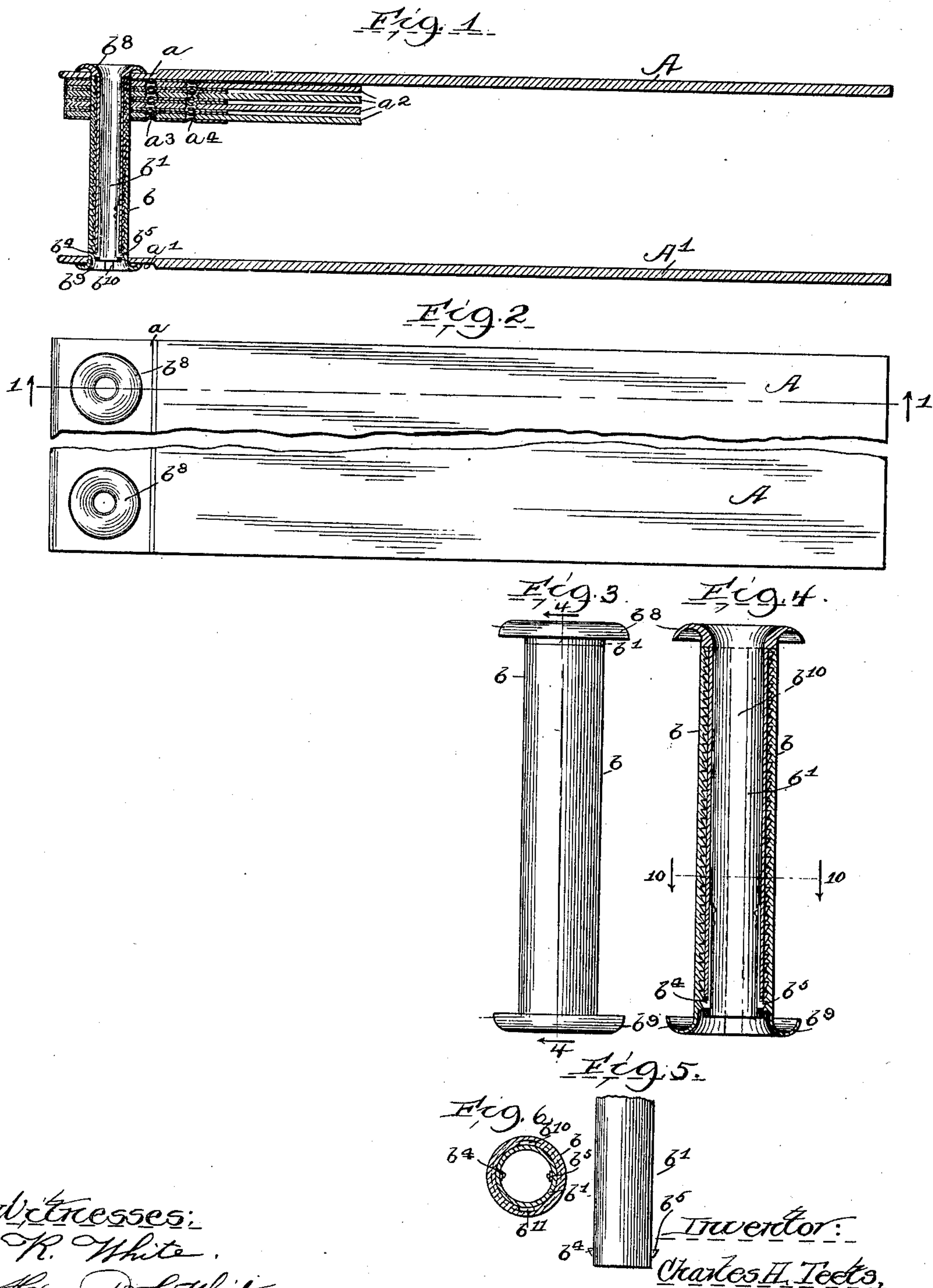
No. 669,105.

Patented Mar. 5, 1901.

C. H. TEETS.
ADJUSTABLE BINDING DEVICE.

(Application filed Jan. 25, 1900.)

(No Model.)



UNITED STATES PATENT OFFICE.

CHARLES H. TEETS, OF CHICAGO, ILLINOIS.

ADJUSTABLE BINDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 669,105, dated March 5, 1901.

Application filed January 25, 1900. Serial No. 2,741. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. TEETS, a citizen of the United States, residing at the city of Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Adjustable Binding Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable persons skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in devices designed to be used to bind and hold in place the leaves of books, albums, or the like.

One object of my invention is to provide a device that may be quickly applied to the purpose for which it is designed and that may be readily removed or separated prior to withdrawing the leaves or any one of them or for inserting new leaves, and when the two members constituting my device have been separated to accomplish this end the leaves which they have been used to secure will remain threaded and in place upon the other member until separately removed as may be desired.

A further object of my invention is to provide a self-binding device that will readily and quickly adjust itself to the thickness of the book or to the number of leaves required to be bound and held together by it to the compass of its capacity.

In the following drawings, Figure 1 shows a section of a fragment of a book, taken on lines 1 1 of Fig. 2. Fig. 2 is a broken-away plan view of a book having my binding device in place. Fig. 3 is an elevation of one of my complete binding devices. Fig. 4 is a longitudinal section of same on lines 4 4 of Fig. 3. Fig. 5 is a broken-off elevation of the inner member of the device. Fig. 6 is a cross-section of the device with the head omitted, taken on line 10 10 of Fig. 4.

In all of the views like letters refer to similar parts.

In Fig. 1, A A' represent the usual stiff backs of books, albums, or the like, having flexible hinge portions a and a' . A few broken-off leaves a^2 are shown in position in Fig. 1. These leaves are provided with one

or more flexible portions $a^3 a^4$, so that the book will open flat at any point. These leaves should be perforated at two or more points at the end having the flexible sections. The perforations should be cut so that when the leaves are piled up one upon the other they will register. The binding device is designed to be placed within these holes. The device consists of two tubes telescoped one within the other. The interior member, however, may be solid for a portion of its length. The exterior tube is represented by b and the interior tube or member by b' . Dogs or detents $b^4 b^5$, having an extended spring-like end and riveted to the interior of the tube b' , project sufficiently beyond the exterior surface thereof to extend into the notches of the exterior tube b , as shown in Fig. 4. The lower ends of these dogs are tapped, so as to admit of the inner tube being readily slipped within the tube b . These dogs or detents could be made an integral part of the tube b' , and the required elasticity could be imparted to them by slotting the tube b' on either side thereof. An enlarged head $b^8 b^9$ may be made on the end of each of the tubes by expanding the tube and turning the edges back, as shown in Figs. 1 to 4, inclusive.

In Fig. 4 the exterior tube b has an internal thread cut in it from end to end. The angle of the thread on one side is perpendicular to the axis of the tube, and on the other side of the thread the inclination is proportionately greater. The detents or dogs b^4 and b^5 engage with the threads. These detents may be attached to or be a part of the tube b' in the manner heretofore described. Slots $b^{10} b^{11}$ as deep as the threads just referred to are cut partly through the walls of the tube b from end to end, as shown in Figs. 4 and 6. When the tube has been turned one-quarter of a revolution from the position shown in Figs. 4 and 6, the detents $b^4 b^5$ will enter slots $b^{10} b^{11}$, respectively, and the tube b' may be freely withdrawn from the interior of tube b .

The use and operation of my device are as follows: When it is desirable to form a number of leaves into a book, such as an album, or leaves that may compose tailors' sample-books or perpetual ledgers—in fact, wherever it is desirable to change the number of leaves

from time to time and yet to preserve a compact book form—my device may be used with great advantage. The leaves should be perforated, as described, and piled one upon the other until the requisite number have been so placed. Then the tube b should be passed first through the back piece A' and then through the leaves a^2 . Then the piece A should be laid over the pile, and the tube b' should be inserted into b and pressed down as far as it will go. The dogs b^4 and b^5 will engage with the teeth formed by the screw-threads within the interior of the tube b , and the two members of my device will be by the said dogs retained in position, and thus form a most excellent device for retaining the before-mentioned leaves in position. To disengage the device illustrated in Fig. 1, all that is necessary to be done is to turn the interior tube slightly until the dogs or detents enter the slots b^{10} and b^{11} , when the tube b' may be quickly removed.

The ease and rapidity with which my device may be operated, its simplicity, and cheapness of construction make it a highly valuable and desirable means for accomplishing the results described.

The covers A and A' are not essential to the use and operation of my device.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

An adjustable binding device, comprising an outside tubular member provided with an enlarged end, a series of longitudinally-arranged notches, or teeth, within the interior of said member, forming one element of a locking device, a longitudinal groove cut into the inner face of said tubular member, equal in depth to the said notches or teeth, an interior member provided with an enlarged end, said interior member extending into the said tubular member, and a dog, detent, or the like, fixed to the said inner member, forming the remaining element of the locking device and adapted to engage with the said notches or teeth.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 8th day of November, 1899.

CHARLES H. TEETS.

Witnesses:

FORÉE BAIN,
M. F. ALLEN.