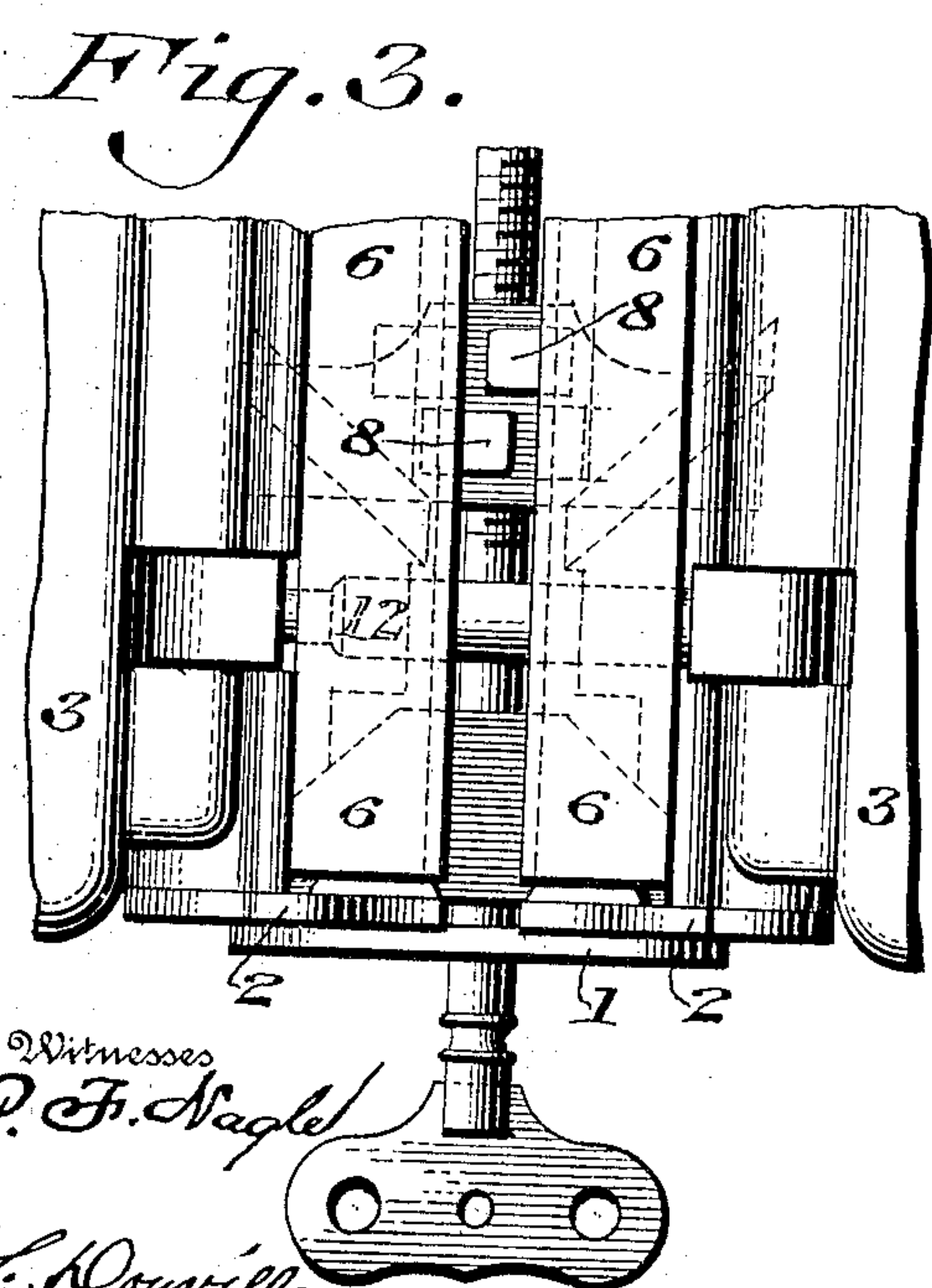
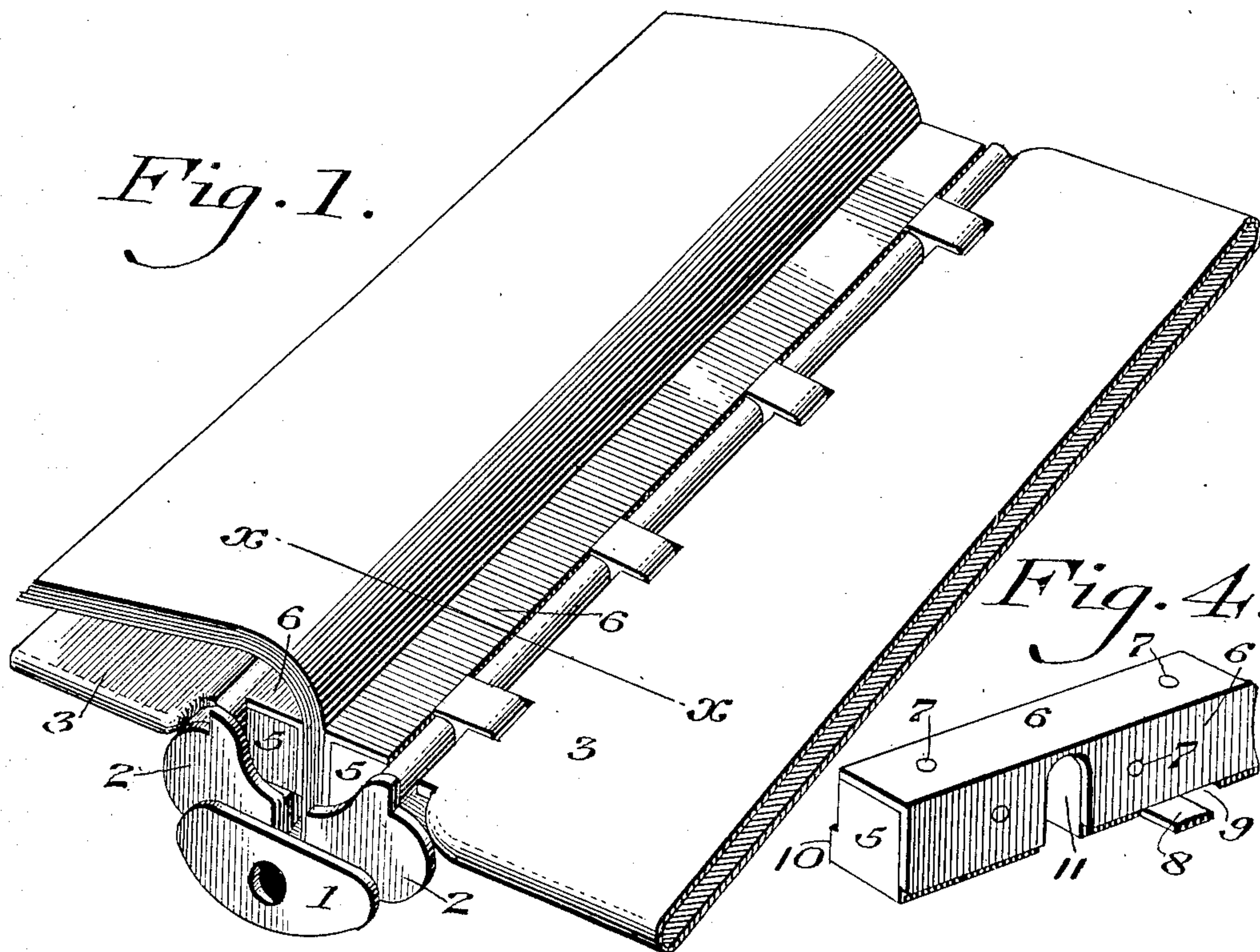


913,527.

C. H. MANN.
LOOSE LEAF BINDER.
APPLICATION FILED OCT. 27, 1908.

Patented Feb. 23, 1909.



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CHARLES H. MANN, OF HADDONFIELD, NEW JERSEY.

LOOSE-LEAF BINDER.

No. 913,527.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed October 27, 1908. Serial No. 459,684.

To all whom it may concern:

Be it known that I, CHARLES H. MANN, a citizen of the United States, residing at Haddonfield, county of Camden, State of New Jersey, have invented a new and useful Loose-Leaf Binder, of which the following is a specification.

This invention relates to a novel construction of loose leaf binders and especially to binders which are mechanically operated and drawn together with a vise like action to grip and hold a number of leaves firmly and tightly between them and prevent displacement of any or all the leaves when the binder is open, as in normal use.

In loose leaf binders as heretofore constructed, the side members forming the gripping jaws which engage and hold the loose leaves in position do not approach sufficiently near together to contact with and hold a single leaf or a comparatively small number of leaves owing to the fact that portions of the operating mechanism come into engagement and prevent a complete closing of the side members. In practice, I have found this type of binder does not give reliable results for the reason that the number of leaves which it is desired to hold efficiently within the binder is confined within certain limits beyond which the leaves become readily detached and displaced and until a sufficient number of leaves are placed between the gripping members, the binder becomes ineffectual to produce the results intended.

In my present invention, I have provided a number of members or supplemental jaws cooperating with the gripping members and their adjuncts, comprising the binder so as to produce an efficient and effectual retaining mechanism for any number of leaves within the limits of the binder itself, whereby a single leaf may be as effectually held within the binder as a hundred or more.

To the above ends my invention consists of a novel construction of loose leaf binder, provided with an auxiliary gripping device adapted to co-act with the holding members of the binder in such a manner as to allow the binder to operate on a number of leaves less than the normal capacity of the binder.

For the purpose of illustrating my inven-

tion, I have shown in the accompanying drawings one form thereof which is at present preferred by me, since the same has been found in practice to give satisfactory and reliable results, although it is to be understood that the various instrumentalities of which my invention consists can be variously arranged and organized and that my invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described.

Figure 1 represents a perspective of a portion of a loose leaf binder embodying my invention. Fig. 2 represents a section on line $x-x$, Fig. 1. Fig. 3 represents a plan of a portion of the binder mechanism. Fig. 4 represents a perspective of a portion of a supplemental gripping jaw. Fig. 5 represents a bottom plan of two auxiliary gripping jaws spaced apart.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings: 1 designates the back of a loose leaf binder of usual construction, cooperating with which are the side members 2 which are operated by any suitable construction to move toward or away from each other in order to inclose between them, the loose leaves which it is desired to hold firmly within the binder. These side members 2, as is customary, have covers 3 hinged thereto in order to inclose and protect the leaves which are held between the same. It will be noted that the members 2, as best seen in Fig. 2, are limited in their movement toward one another and at no point in the operation of the mechanism can they approach sufficiently near together to come into contact, owing to the bottom extensions 4, which are necessary for proper cooperation with the mechanism for moving them.

It will be apparent that when the mechanism has been so moved as to bring the side members to the limit of their inward movement a considerable space still exists in which a number of leaves may be placed and yet not be acted upon by the said side members and therefore remain loose and liable to displacement.

5 designates a member forming what I term an auxiliary jaw adapted to fit within

the space and in the present instance I employ two such members similar in construction and operation for the purpose intended, though it will be readily seen that one member of sufficient size could serve to cooperate with one of the side members 2 and produce a similar result. However, I preferably employ a plurality of these jaws, one located on each side of the center of the binder back and presenting cooperating and suitable faces. As herein disclosed, I provide a facing 6 of suitable material, as a reinforcement for the block 5 and to aid in maintaining the fixed relation between the two faces, the said facing extending over the top of the block and being secured thereto by rivets 7 or like fastening means. In order to prevent displacement of the auxiliary members or jaws 5 when positioned in the space between the side members 2 of the binder, I preferably provide on each, a plurality of lugs 8 at or near the bottom of the member and extending outwardly to pass beneath the cooperating member in which are recesses 9 corresponding to the position of the lugs 8. It will thus be apparent that if the side members 2 of the binder are loosened, that the auxiliary jaws 5 are so interlocked as to prevent either their falling out or becoming incorrectly positioned.

It will be noted that if the side members 2 are extended outwardly a sufficient distance a point will be reached at which the lugs 8, will be soon removed from engagement with the respective cooperating jaw 5 and apparently their function as a retaining means will be impaired. However, when this point is reached it will be seen that the leaves inclosed by the binder will rest upon these lugs 8 and cooperate therewith in a similar manner to the members 5 and therefore the function of the lugs still remains and it will be impossible for the members 5 to be readily detached.

A further retaining means is provided on the opposite side of each member for a similar purpose in the extension 10 which, in the present instance, runs throughout the length of each jaw and when the jaws are placed in the binder, the said projections will pass under the side members and aid in locking them against vertical movement.

11 designates a series of apertures in each jaw, suitably spaced apart so that the jaws may fit down into the back of the binder and over the transverse telescoping members 12, forming a part of the binder mechanism.

It will thus be seen from the foregoing that I have provided an auxiliary jaw device for a loose leaf binder which is simple in construction and readily adjusted in binders of the ordinary type, whereby the same may become operative to engage and hold firmly a single leaf therein or a number of leaves

less than the normal locking capacity of the binder.

It will now be apparent that I have devised a novel and useful construction which embodies the features of advantage enumerated as desirable in the statement of the invention and the above description and while I have in the present instance shown and described the preferred embodiment thereof which has been found in practice to give satisfactory and reliable results, it is to be understood that the same is susceptible of modification in various particulars without departing from the spirit or scope of the invention or sacrificing any of its advantages.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a binder, movable side members, a member therebetween forming an auxiliary gripping jaw, and means on said jaw member to prevent displacement thereof.

2. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary gripping jaws, and means on said jaw members to prevent displacement thereof.

3. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary gripping jaws, and means on each jaw member cooperating with a side member to prevent displacement thereof.

4. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary gripping jaws, and means on each jaw member cooperating with its adjacent jaw member to maintain said jaw members in operative relation.

5. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary gripping jaws, means on each jaw member cooperating with a side member to prevent displacement, and means between said jaw members to maintain said blocks in operative relation.

6. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary gripping jaws, and reinforcing means on said jaw members.

7. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary gripping jaws, and reinforcing means on each contacting face of said jaw members.

8. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary gripping jaws, and a strip of reinforcing material on each contacting face of said jaw members.

9. In a device of the character described, a

binder having movable side members, members therebetween forming auxiliary gripping jaws, reinforcing means on said members, and means to prevent displacement of said
5 jaw members.

10. In a device of the character described, a binder having movable side members, members therebetween forming auxiliary

jaw members, and means on said jaw members cooperating with leaves in said binder 10 to prevent displacement of said jaws.

CHARLES H. MANN.

Witnesses:

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