

C. R. NELSON.
 LOOSE LEAF BINDER.
 APPLICATION FILED AUG. 20, 1908.

924,099.

Patented June 8, 1909.

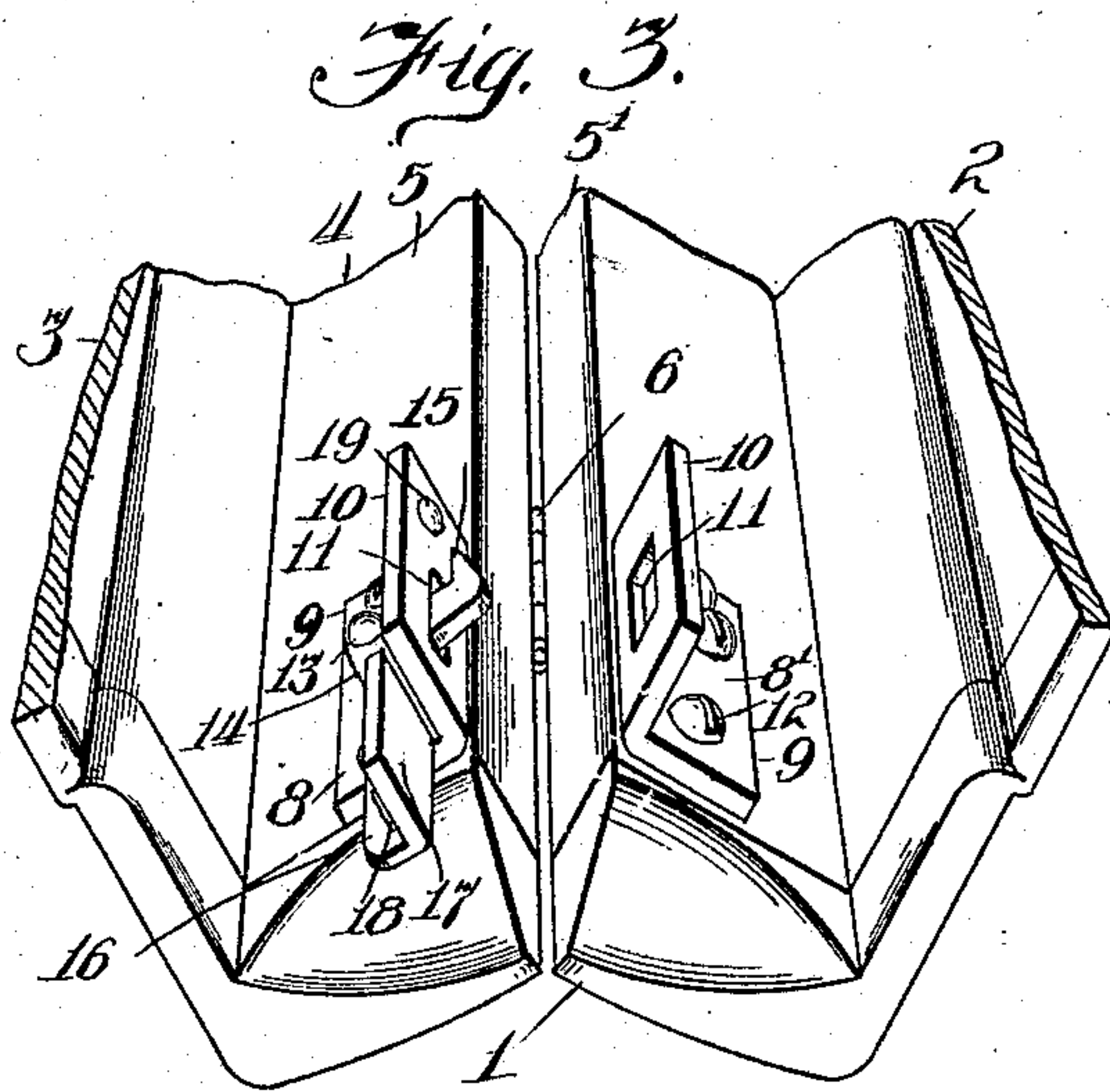
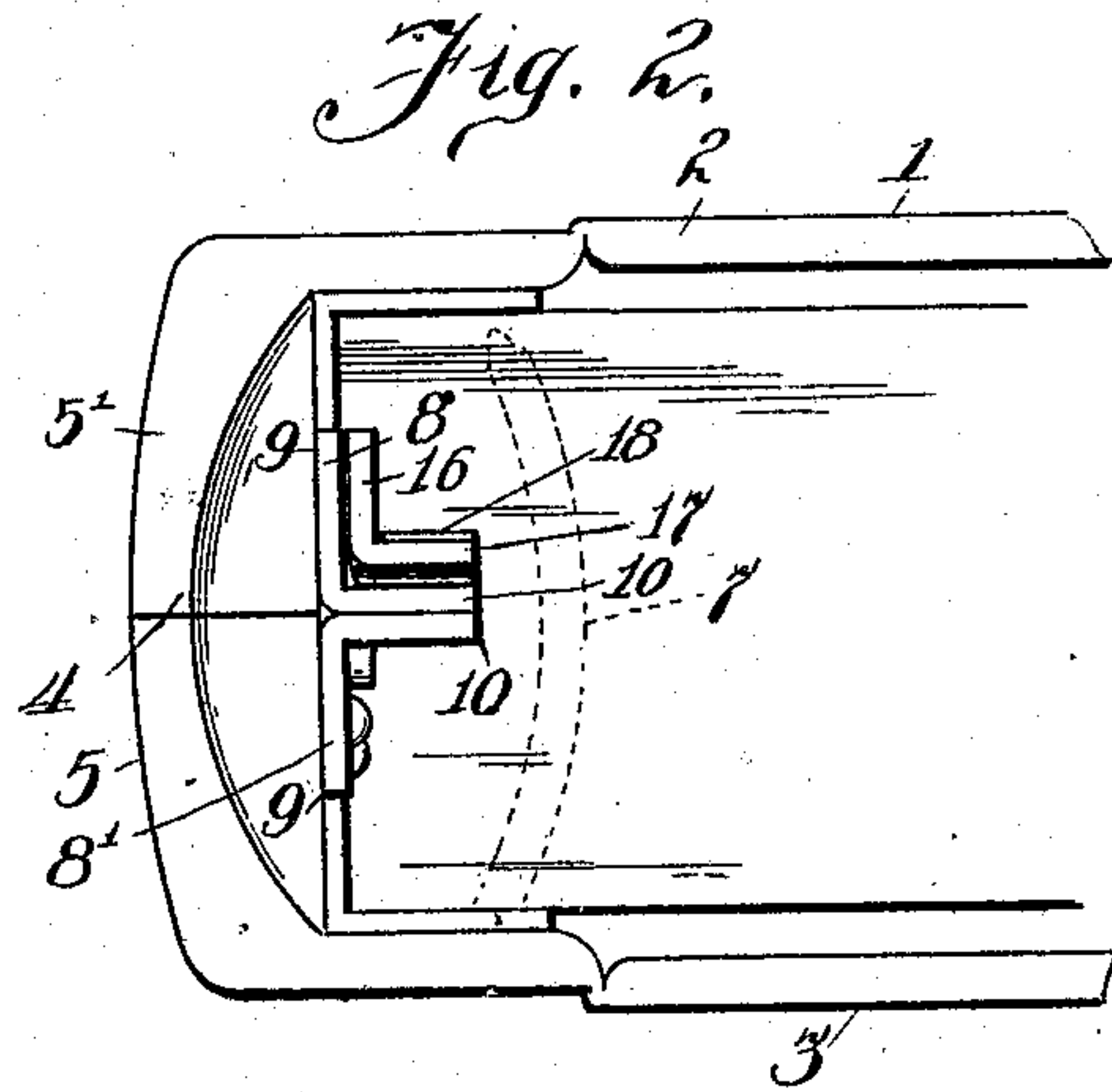
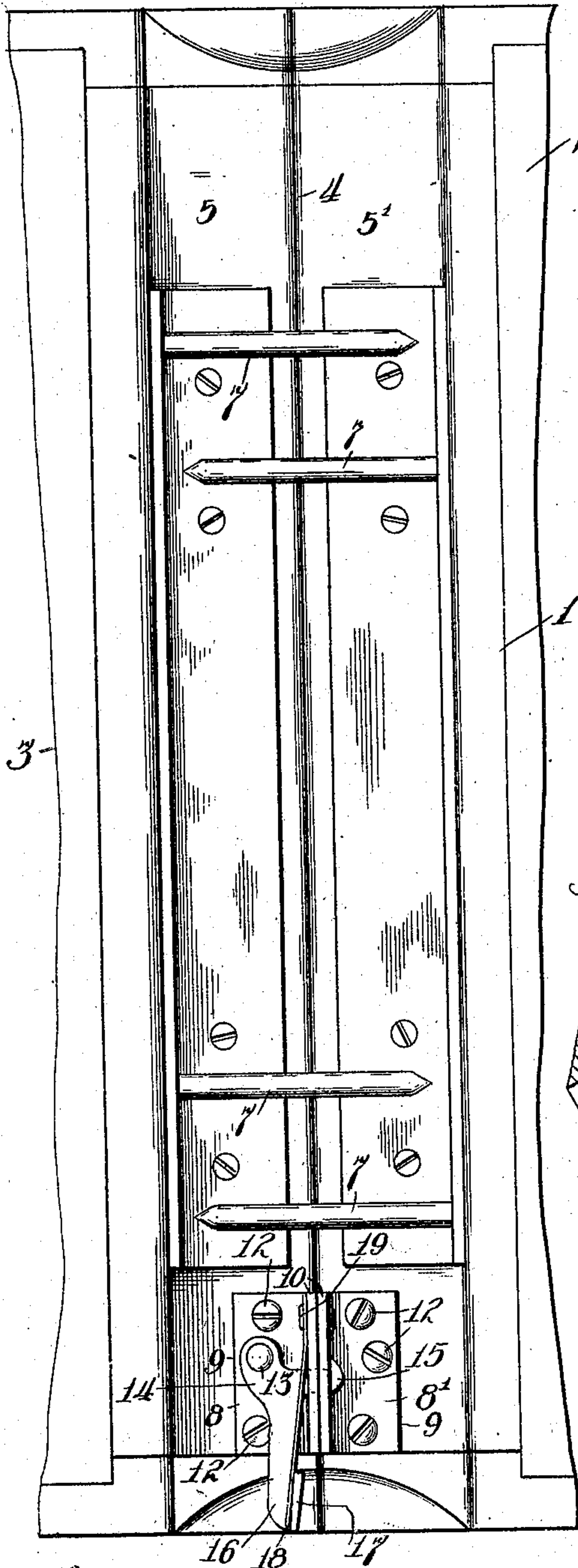


Fig. 1.

Witnesses
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UNITED STATES PATENT OFFICE.

CHARLES R. NELSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO NELSON CORPORATION, A CORPORATION OF ILLINOIS.

LOOSE-LEAF BINDER.

No. 924,099.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed August 20, 1908. Serial No. 449,395.

To all whom it may concern:

Be it known that I, CHARLES R. NELSON, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Loose-Leaf Binders, of which the following is a specification.

This invention relates to improvements in loose leaf binders and refers more particularly to improved means for locking together the divided back members of binders or files of the prong type.

Among the salient objects of the present invention are to provide a locking device of the character referred to which can be applied to the inside of the binder without cutting or otherwise mutilating the latter; to provide a lock of the character referred to which can be readily operated with one hand and which at the same time reliably and automatically locks the divided back members together; and in general to provide improvements in the details in construction and arrangement in a lock of the character referred to.

This invention consists in the matters hereinafter described and more particularly pointed out in the appended claims.

Referring to the drawing Figure 1 is a fragmentary inside elevation of a binder of the prong type equipped with my improved locking device, the divided back members being shown in locked position. Fig. 2 is a fragmentary bottom plan view of the same. Fig. 3 is a view similar to Fig. 1 except that the parts are shown in unlocked position.

Referring to the drawings 1 designates as a whole a binder or file of the prong type comprising cover members 2 and 3 respectively and a divided back member 4, the two halves 5, 5' of which are pivotally hinged together as shown at 6. Within the back members are secured two pairs of curved prongs 7 upon which the leaves are inserted in the usual manner.

Describing now the manner of locking together the respective halves of the divided back member, upon the lower inner face of each of these portions 5, 5' are secured a pair of bracket members 8, 8' respectively. These bracket members are or may be exactly identical in construction and preferably take the form of angle irons. Each consists essentially of a base member 9 provided at its inner edge with an up-standing right angled

flange 10 which is centrally apertured as shown at 11 for a purpose hereinafter described. The base portions 9 are adapted to lie flush with the inner face of the back members and are fastened thereto by suitable screws 12, 12. Upon the base of the bracket member 8 is pivotally secured at 13 a peculiarly shaped thumb latch 14. This latch member comprises a latch lip 15, beveled at its outer edge as usual, and a thumb lever 16 which terminates at its outer end in a right angled up-standing flange 17. As shown in the drawing the head of the latch extends through the aperture 11 in the adjacent striker-plate 10 and is normally forced toward the rear end of this aperture by means of a plate spring 18 one end of which is secured at 19 to the rear lower edge of the flange 10 and the other end of which bears against the inner face of the flange 17. When the back members 5, 5' are closed the beveled edge of the latch head will force the latch backwardly against the action of its spring until the former has entirely entered the aperture 11 of the striker-plate 10 whereupon the latch lip will automatically spring into locking engagement with said striker. When it is desired to unlock the binder the thumb lever 16 is forced outwardly against the action of the spring so as to withdraw the latch lip from the striker arm 10 whereupon the back members 5, 5' open by gravity.

It will be noted from the foregoing that the lock is attached to the inner face of the binder without cutting out or mutilating the latter as in devices heretofore used. It has been shown in practice that this mutilation of the back member in binders of relatively small size tends to materially weaken the latter. It is to be further noted that the bracket members may be identical in construction thus materially decreasing the cost of manufacturing and the latch proper may be placed on either half of the divided back member.

It is of course apparent that my device may be more or less varied in details of construction without in any manner departing from the spirit of the invention.

I claim as my invention:

1. In a binder, the combination with a divided back member, the divided portions of which are pivotally hinged together, of a bracket member upon the inner face of each of said divided portions, each bracket com-

prising a base portion secured to the back member and a right-angled upstanding flange portion provided with an aperture extending therethrough, a latch member
5 pivotally mounted upon the base portion of one of said bracket members and having its head extending through the apertures of said flange portions when in locked position, a
10 lever arm connected to said latch, and a spring upon one of said flange members and operating to force said latch head into locking engagement with the opposed flange member.

2. In a binder, the combination with a divided back member adapted to receive the
15 leaves, of means for automatically locking the divided parts of said back member to-

gether comprising an up-standing striker plate secured upon the inner face of one of the divided parts of said back member, a
20 latch pivotally mounted upon the upper face of the other part of said back member, a lever connected to said latch, an up-standing arm upon that portion of the divided back member to which the latch is secured, and a
25 plate spring connected at one end to said up-standing arm and having its free end engaging the lever and operating to force the latch member into locking engagement with said striker plate.

CHARLES R. NELSON.

Witnesses:

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LOIS FORCE.