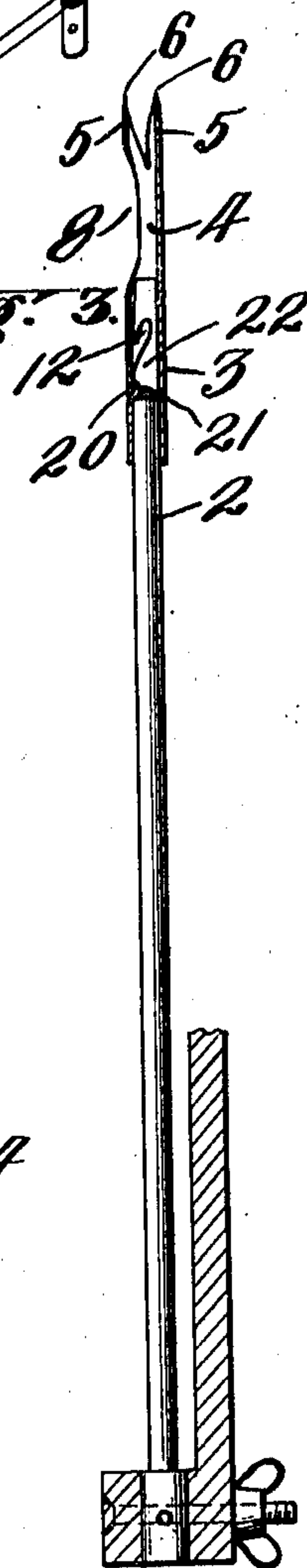
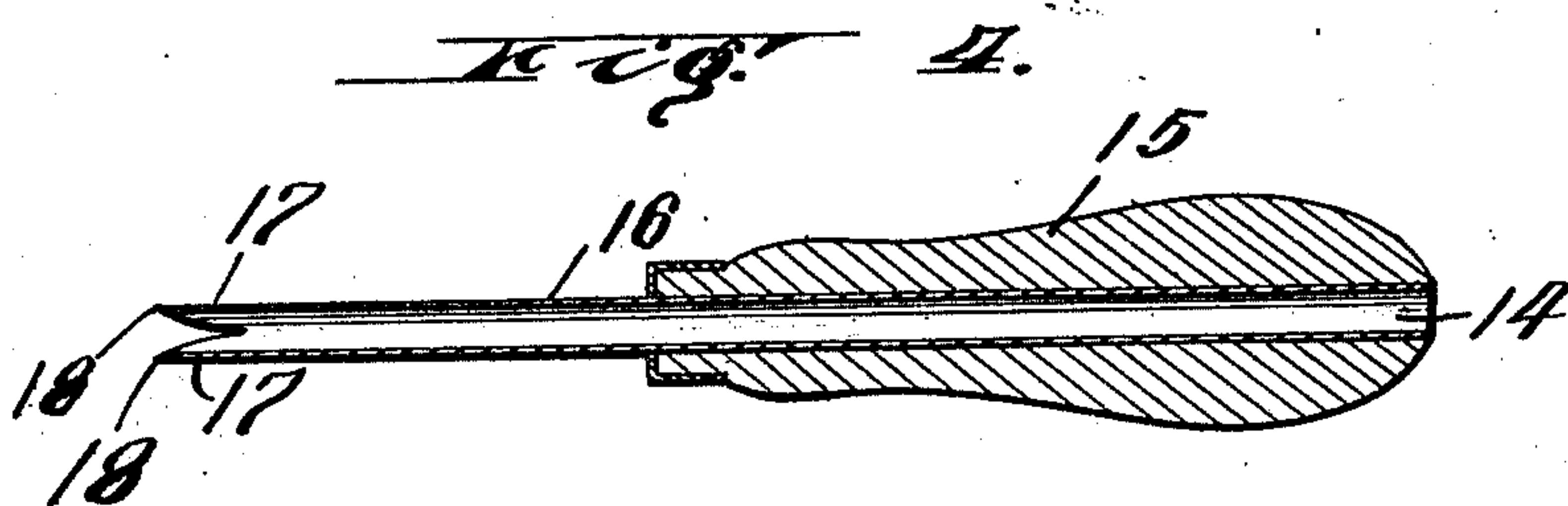
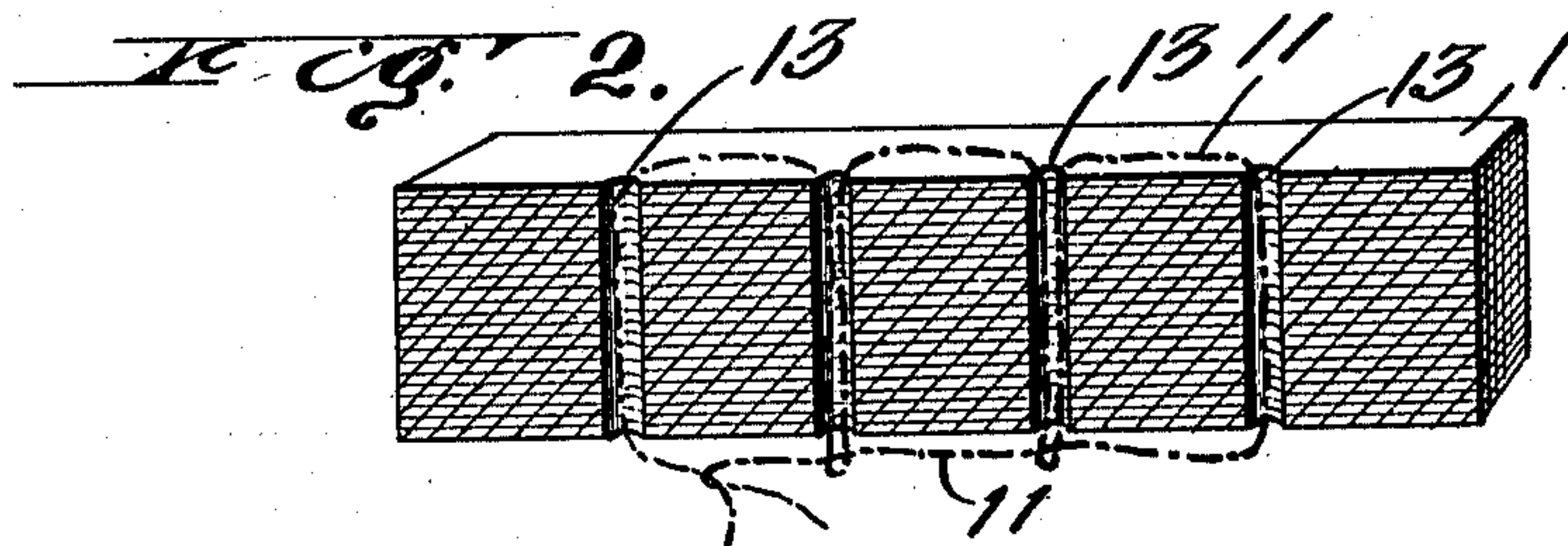
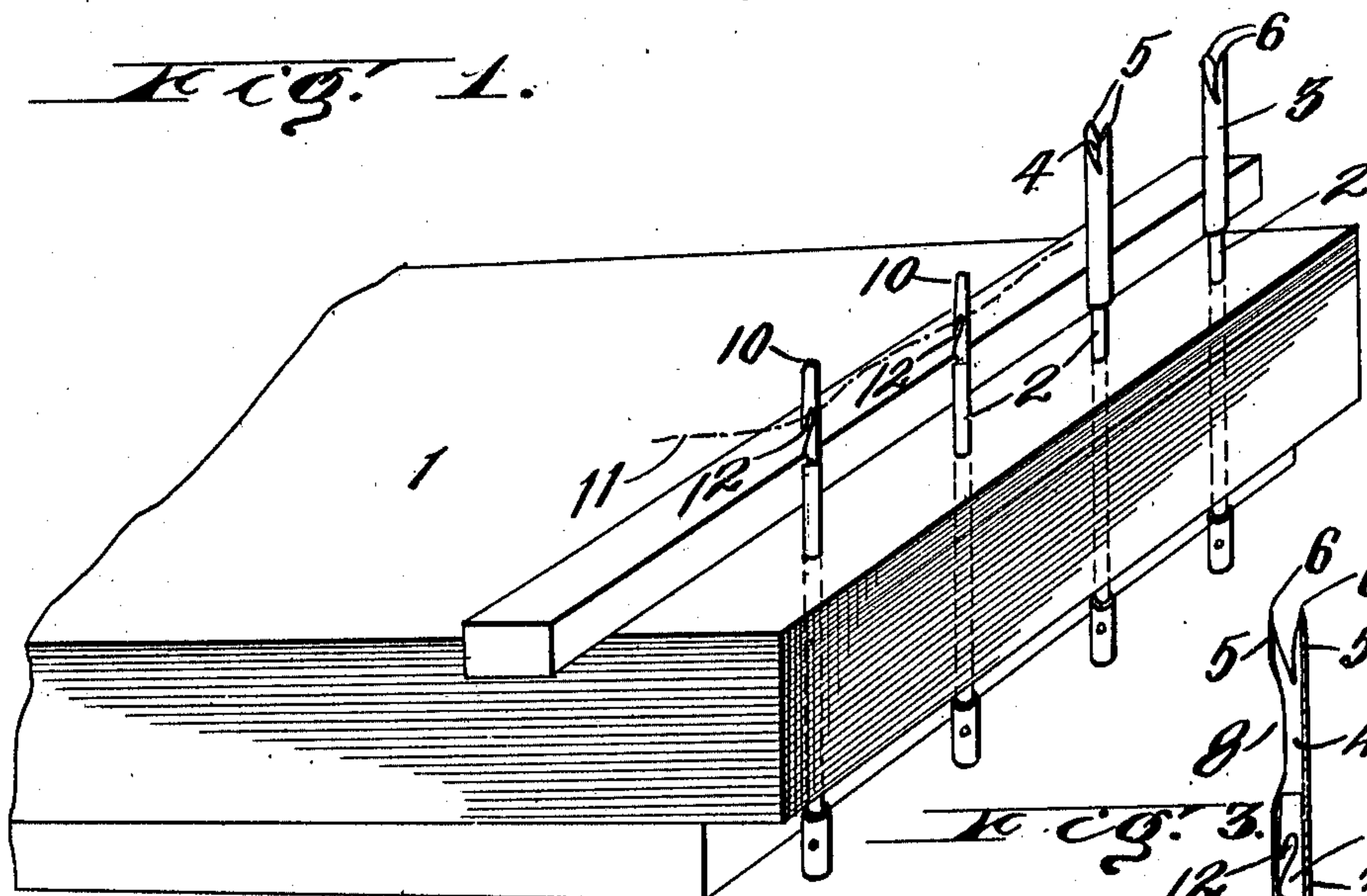


O. C. MANTEUFEL.
 BILL BOOK AND RECORD BINDER.
 APPLICATION FILED MAY 25, 1910.

982,842.

Patented Jan. 31, 1911.

Fig. 1.



Witnesses
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OTTO C. MANTEUFEL, OF MILWAUKEE, WISCONSIN.

BILL-BOOK AND RECORD BINDER.

982,842.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed May 25, 1910. Serial No. 563,298.

To all whom it may concern:

Be it known that I, OTTO C. MANTEUFEL, a citizen of the United States, residing at Milwaukee, county of Milwaukee, and State of Wisconsin, have invented new and useful Improvements in Bill-Book and Record Binders, of which the following is a specification.

My invention relates to improvements in a so called bill book and record binder, for which Letters Patent, No. 953046, was issued to me March 29, 1910, and said improvements pertain more especially to the construction of the parts referred to in said patent as binding needles by which a series of perforations are first made through the sheets of blocked paper preparatory to securing the same together with a binding cord, and by which device the cord is drawn through such perforations preparatory to securing the paper thus blocked together. As heretofore constructed and shown in said patent, the binding needles are made solid and are adapted to puncture a hole through the paper without removing any portion of the same, whereby it became difficult to draw the binding cord through such perforations. By my improvement, however, the needles are each provided with a cylindrical cutting instrument, which is removably attached thereto and is adapted to cut out and remove a portion of the paper as it is forced into the same, whereby a clean cut aperture is formed for the reception of the binding cord.

My invention is further explained by reference to the accompanying drawings, in which—

Figure 1 represents a perspective view of a series of binding needles supported from a block of paper as the same is held preparatory to being bound together. Fig. 2 is a perspective view in section of a block of paper showing the arrangement of the binding cord as it appears after being drawn into the perforations, preparatory to binding such sheets of paper together. Fig. 3 is a side view of one of the needles provided with a cylindrical cutting instrument shown in vertical section, and Fig. 4 is a longitudinal section of a modified form of needle provided with a central opening for the passage of waste paper which is removed in forming the apertures.

Like parts are identified by the same reference numerals throughout the several views.

1 represents a block of sheets of paper secured together, preparatory to forming a series of perforations therein.

2 is a needle and 3 is a cylindrical cutting instrument, which is adapted to be removably connected with the upper end of the needle as the perforations are being formed through the blocks of paper. The cutting instrument comprises a hollow cylindrical portion 4 and opposing cutting blades 5, 5, which terminate at their upper ends with sharp puncturing points 6, 6.

8 is an aperture formed in the side of the cutting instrument through which the small disks of paper escape from the instrument, as the same is being forced through the block.

It will be understood that when the needles are used, as shown in Fig. 1 for perforating the blocked sheets, they are each provided with a cutting instrument 3, while being forced through the paper. When, however, they have penetrated the block of paper, as shown in Fig. 1, the cutting instrument 3 is removed from all of said needles as shown at 10, 10, in said Fig. 1, whereby the binding cord 11 is readily inserted in the hook or angular recesses 12 of said needles, preparatory to drawing the cord 11 through the apertures 13 of the paper as shown in Fig. 2. As heretofore constructed and shown in said patent, the needles 2 are made pointed at their upper ends and were adapted to puncture the paper without removing any portion of the same, and for this reason, it became difficult as stated, to draw the folded binding cord back through the perforations as the needles were withdrawn. By my improvement, however, it will be understood that the cutting blades 5, 5, are adapted to sever the paper when the parts thus severed pass between said cutting blades and out through the side aperture 8, whereby a smooth aperture is formed through the paper for the reception of the binding cord.

The modified form shown in Fig. 4 comprises the cylindrical member 16, cutting blades 17, 17 and puncturing points 18, 18, and the side aperture 8 is dispensed with, and the severed paper is free to pass up through the cylindrical opening 14 of the cutting instrument, and such device is preferably provided with a handle 15 which for such purpose serves as a substitute for the needle by which the blades may be manually

forced through the block of paper, preparatory to inserting the cord.

In the preferred form shown in Figs. 1 and 3, the cutting instrument is provided with an inwardly projecting shoulder 20, which is adapted to engage in the recess 21 formed in the side of the needle 2, whereby said cutting instrument is prevented from being accidentally disengaged from said needle. It will be understood that the upper end of said needles 2 are provided upon two opposing sides with flattened surfaces 22, which are turned at right angles to the shoulder of the cutting instrument as said instrument is being placed thereon. When, however, said cutting instruments are in place, as shown in Fig. 3, they are turned a quarter of a turn on said needles, whereby the inwardly projecting shoulder 20 is caused to engage in the opposing recesses 21 of the needle and thus temporarily lock the cutting instrument thereto as the same is being inserted through the paper. It will of course be understood that preparatory to disengaging said cutting instruments from the needles, they are turned a quarter of a turn in the opposite direction whereby the shoulder 20 is disengaged from said recess, when said instruments are readily withdrawn.

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

1. In a device of the described class, the combination of a hollow cylinder, a pair of cutting blades formed integrally with said cylinder terminating at their ends with sharp penetrating points, and a needle provided near one end with a cord receiving hook, said needle being adapted to be used for forcing said cutting blades and cylinder through a block of paper, said hook being adapted, when said cylinder and blades are removed, to engage a binding cord and draw the same into the perforations formed by such blades.

2. In a device of the described class, a series of needles, each provided at one end with a cord receiving recess, a cutting instrument for each of said needles comprising a cylindrical member adapted to be removably secured to each of said needles, and means for temporarily locking said cutting instrument to said needle, said cutting instrument being provided with a pair of cutting blades terminating at their ends with sharp puncturing points, all substantially as and for the purpose specified.

In testimony whereof I affix my signature in the presence of two witnesses.

OTTO C. MANTEUFEL.

Witnesses:

JAS. B. ERWIN,
I. D. BREMER.