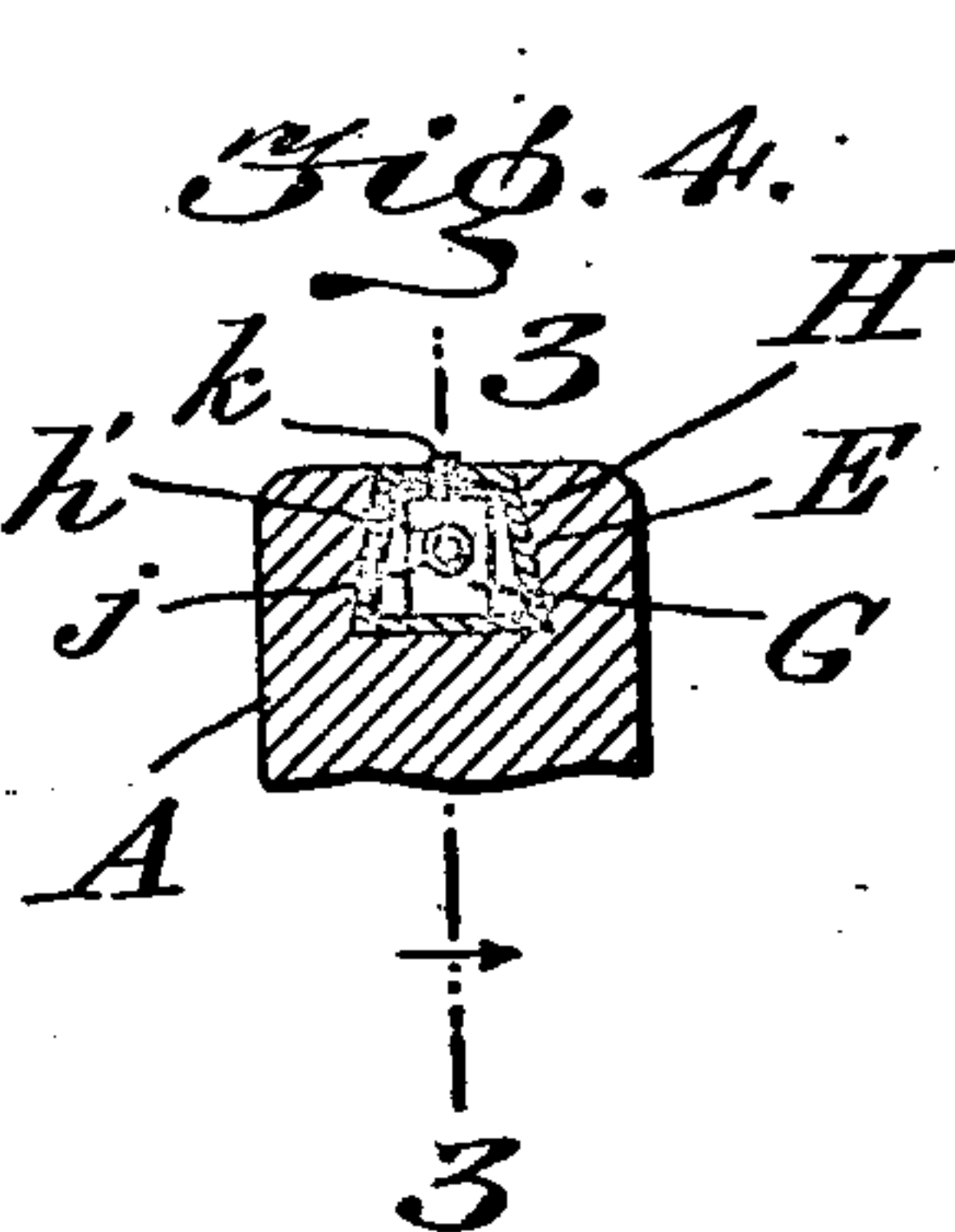
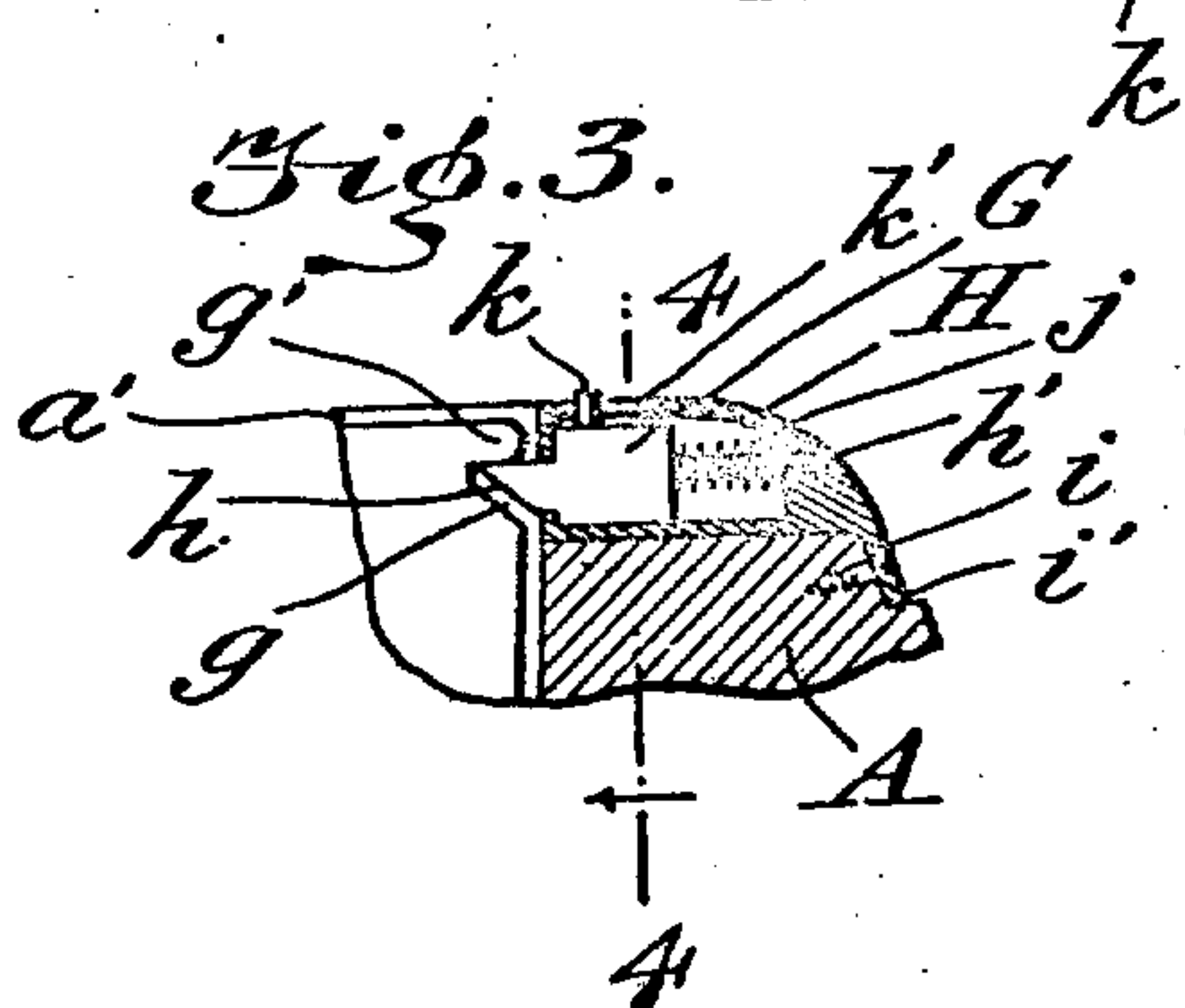
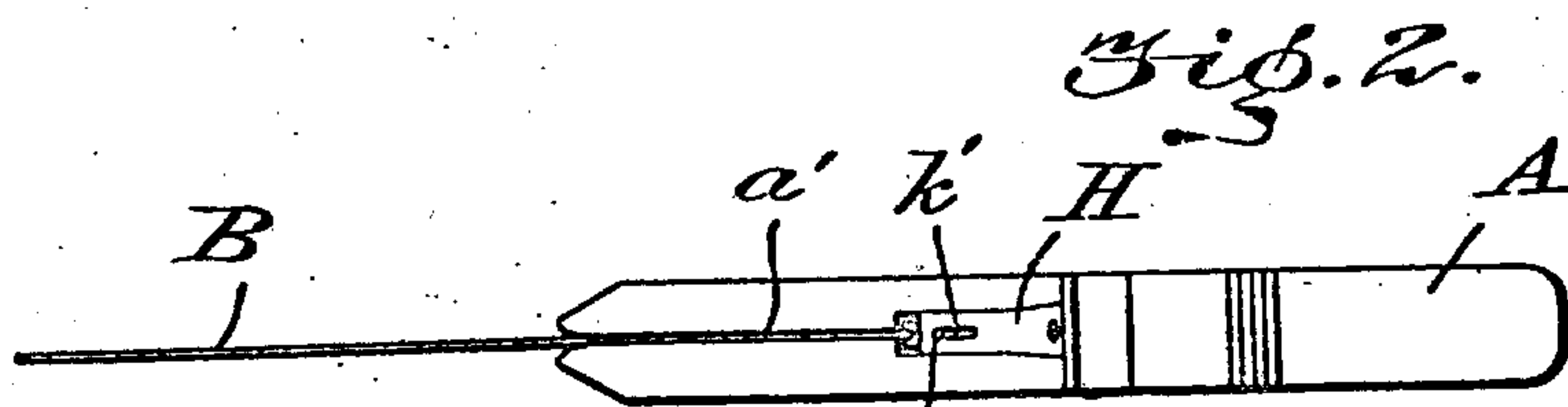
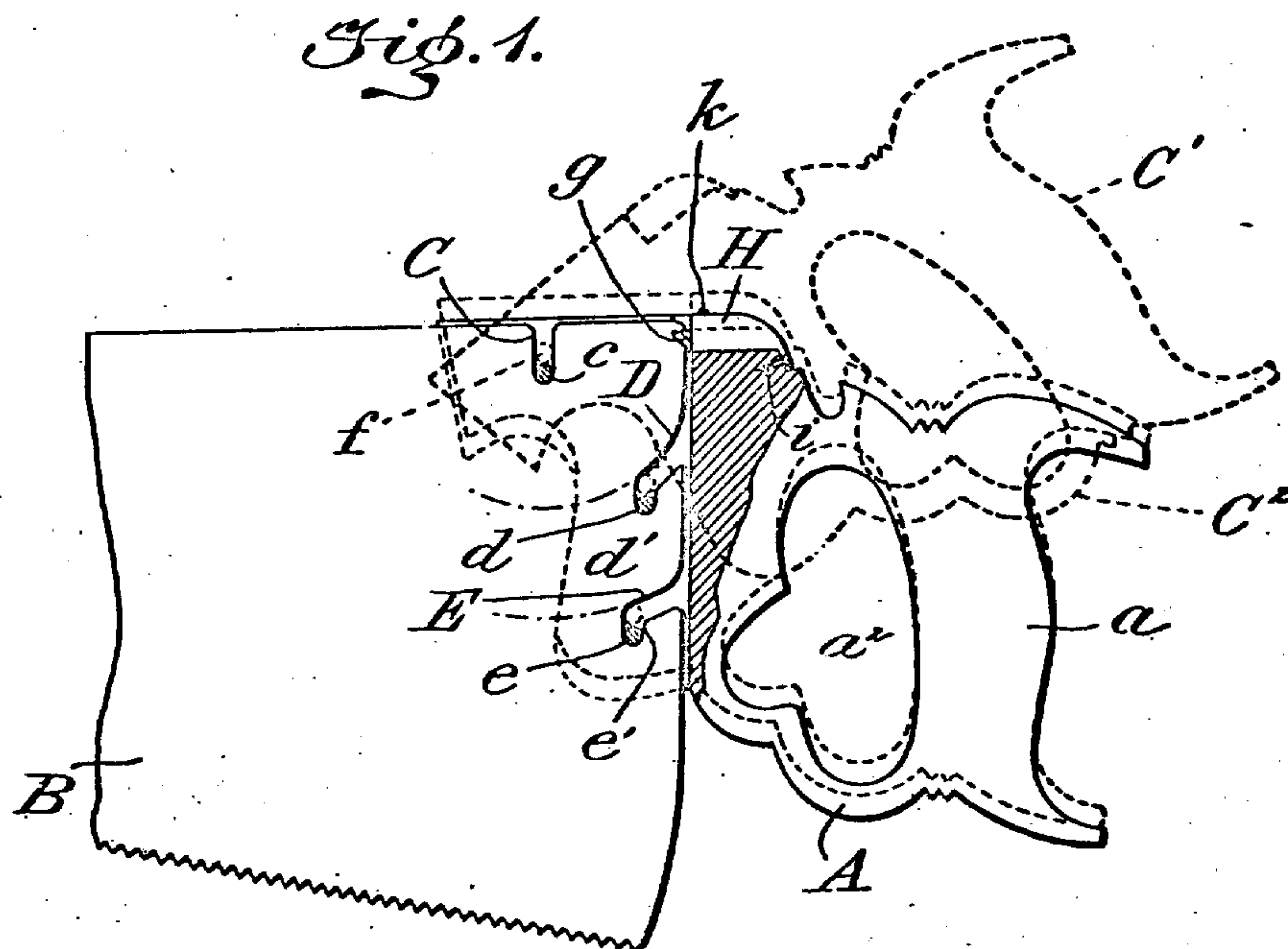


T. P. J. COLEMAN.
DETACHABLE SAW HANDLE.
APPLICATION FILED NOV. 14, 1907

899,028.

Patented Sept. 22, 1908.



WITNESSES

W. C. Abbott
V. E. Nichols

INVENTOR

Thomas P. J. Coleman

BY

Griffith B. Bernhard

ATTORNEYS

UNITED STATES PATENT OFFICE.

THOMAS P. J. COLEMAN, OF NEW YORK, N. Y.

DETACHABLE SAW-HANDLE.

No. 899,028

Specification of Letters Patent.

Patented Sept. 22, 1908.

Application filed November 14, 1907, Serial No. 402,111.

To all whom it may concern:

Be it known that I, THOMAS P. J. COLEMAN, a citizen of the United States, residing in the city of New York, borough of Manhattan, county of New York, and State of New York, have invented certain new and useful Detachable Saw-Handles, of which the following is a specification.

This invention is a detachable saw handle, especially intended for hand saws, whereby a single handle may be used in connection with a variety of saw blades. In this art it is desirable to provide means for rigidly fastening the handle to the blade in such manner that the blade will not work loose in the handle. Furthermore, the fastening means between the handle and the blade must be simple in construction, easy of operation, and reliable in service. These objects are secured by a device embodying my invention. Furthermore, the invention does not require the employment of a handle which differs in essential particulars, so far as regards its appearance and general construction, from the saw handles of the prior art.

The invention consists of a saw handle having a plurality of devices secured therein, said devices being adapted for interlocking engagement with a number of slots in a saw-blade, said handle being provided, also, with a locking contrivance adapted for interlocking engagement with a notched part of the saw-blade subsequent to the entry of the first named devices into the slots of the saw-blade, as will be hereinafter described.

In the preferred form of the invention, the saw-blade is provided, in addition to the notch above referred to, with a slot in its top edge, and, also, with one or more arcuate slots, each having an offset, whereby in the operation of applying the handle to one blade, said handle is first swung as on a pivot and then moved in a straight path, for the two-fold purpose of, first, making the aforesaid plurality of devices enter the arcuate slots, and, second, of causing said devices to enter the offsets in the slots, at which time the locking device engages with the notch in the blade.

The device has manifold advantages, chief among which is that of locking the handle and blade so rigidly together that it is practically impossible for the blade to work loose in the handle. The devices seated in the offsets of the slots preclude the saw from moving in a longitudinal direction, and in

one crosswise direction, within the handle, while the automatic locking device retains the blade from crosswise movement in an opposite direction. The handle is substantially the same as an ordinary device. The blade is not weakened to any extent by the slots and notches therein. The handle may be easily disconnected, thus permitting a number of blades to be laid closely together and packed compactly in a tool chest, the handle being placed separately in the chest.

In the accompanying drawings, I have illustrated one practical embodiment of the invention, but the construction shown therein is to be understood as illustrative, only, and not as defining the limits of the invention.

Figure 1 is a side elevation of a saw and handle illustrating the handle partly in section and showing by dotted lines the method of applying and removing the handle to and from the heel of the blade. Fig. 2 is a top plan view of the device shown in Fig. 1. Fig. 3 is an enlarged detail section showing one form of locking device whereby the handle is held against movement relative to the blade, the plane of the section being indicated by the dotted line 3—3 of Fig. 4. Fig. 4 is a cross section on the line 4—4 of Fig. 3.

A designates a saw handle and B a saw blade. In its general construction the handle, A, is similar to ordinary handles for hand saws, that is to say, the handle is provided with the grip, *a*, the longitudinal kerf or slot, *a'*, and the opening, *a''*. Across the kerf, *a'*, extends a plurality of screws or rivets, *c, d, e*, which may be similar to the devices ordinarily used for securing the blade rigidly in the handle, or I may provide small rivets adapted to be fastened permanently in the handle across the kerf, *a'*, therein. The only important change in the ordinary handle which I find necessary to make in order to adapt the handle, A, to meet the requirements of the present invention, consists in the provision of a slot or groove, H, the same being provided in the upper edge of the handle, above the grip, *a*. As shown in Fig. 3, this longitudinal groove is dovetailed in cross section, and at one end said groove opens into the kerf, *a'*, while at its other end, it opens through the back edge of the handle.

The saw, B, is provided in its top edge with a notch, C, the axis of which is substantially at right angles to the longitudinal axis of the saw-blade. The notch, C, extends inwardly

with respect to the saw-blade for a suitable distance, one end of said notch opening through the top edge of said blade. In the rear end or heel of the blade there is provided
 5 a plurality of arcuate slots, D, E, each slot opening through said rear edge of the blade and terminating at its inner end in an offset portion, the offset of the arcuate slot, D, being indicated at d' , and the offset of the arcuate slot, E, at e' . The offsets of the two arcuate slots are parallel to the slot, C, and each arcuate slot is concentric with, or struck from a center indicated at f , said center being above the bottom end of the slot, C. The
 10 blade, B, is provided in its rear edge, and just below the top edge thereof, with a notch, g , with which is adapted to engage a locking device herein shown as an automatic bolt. The notch, g , is provided in the back edge of the blade above the first curved slot, D, said notch being shown more clearly in Fig. 4 of the drawings.

The preferred form of the locking device is a bolt, G, having a beveled nose, h , and a stem, h' . Said bolt and its stem are incased within a casing, H, the latter being dovetailed in cross section and adapted to fit snugly into the dovetailed groove, E, of the handle. The casing, H, may be fastened
 25 rigidly to the handle by suitable means, such as by the screw, i , which passes through a lug, v , the latter being integral with the casing and overlapping a solid part of the handle, A, whereby the screw, i , is adapted to be embedded in the handle for the purpose of securing the casing firmly in place therein. It is evident that the screw may be removed and the casing slipped lengthwise in the groove, E, for the purpose of withdrawing
 30 said casing and the locking bolt from position in the grooved part of the handle. The locking bolt is impelled normally to an exposed position by a spring, j , which is held in place by the guide stem, h' , and is housed within said casing. The locking bolt is provided with a finger piece, k , which extends upwardly from the bolt and is adapted to work in a slot, k' , the latter being provided in the upper part or cover of the casing, H.
 35 The beveled nose, h , of the spring pressed bolt is adapted to ride on the upper corner of the saw when applying the handle to the blade, and, if desired, the shoulder formed by the notch, g , may be curved somewhat as at g' in Fig. 3, for the purpose of permitting the bolt to ride easily on the edge of the saw when applying the handle to the blade.

To fit the handle to the blade, the handle is turned to the dotted inclined position, C' , and the saw is thrust into the kerf for the screw or rivet, c , to enter the slot, C, and take the position indicated in dotted lines at f . The handle is then turned in an arc of a circle, the center of which is indicated at f ,
 60 thus moving the handle to the dotted line

position, C' , and causing the screws or rivets, d , e , to enter the arcuate slots. The final movement is to slide the handle across the blade, to thereby make the screw or rivet, c , assume a position at the bottom of the slot, C, and to simultaneously move the screws or rivets, d , e , into the offsets, d' , e' , of the slots. This last adjustment causes the nose, h , of the bolt to clear the curved edge, g' , of the blade, whereby the spring forces the bolt
 70 into the notch, g , of said blade, whereby the handle and blade are locked firmly together against relative movement.

From this description it will be seen that the handle is adjusted by first moving it in an arc of a circle and then adjusting it parallel to the heel of the blade. The screws or rivets, d , e , hold the blade against movement longitudinally in either direction within the handle; the bottom edges of the slots hold the blade against movement crosswise in a direction toward the back edge, while the bolt, G, engaging with the notch, g , holds the blade against crosswise movement in a direction toward its toothed edge, whereby the
 80 saw and the handle are connected rigidly against any possibility of movement of the blade within said handle.

In order to disconnect the handle from the blade, the latch, G, is withdrawn by operating the finger piece, k , after which the handle is lifted to the dotted line position, C'' , and then swung to the dotted line position, C' , whereby the handle can be withdrawn easily and quickly from the blade.
 95

My invention possesses many practical advantages, chief among which is the ability of using one handle in connection with a number of saw blades. With my invention, the handle can be disconnected from the blade, a number of blades can be packed closely together and placed in a chest, and the handle can be separately placed in the tool chest. When it is desired to use any one saw blade, the handle is easily and quickly fitted thereto, and the saw is thus adapted for use. To use a blade of another kind, it is only necessary to disconnect the handle and apply it to the new blade. In all outward respects the handle is similar to ordinary devices, it being necessary to only form the groove E, and place therein the casing containing the spring pressed bolt. The casing and the bolt are concealed by and within the handle, the screw, i , serving to
 100 fixedly secure the casing to said handle in a way which permits it to be readily removed for replacing or repairing the spring. The saw blade can be easily and cheaply prepared for use in connection with the detachable handle. It is to be observed in this connection that the slots, C, D, E, are easily cut, punched or stamped in the blade at the time of its manufacture, or subsequently thereto. The slots are spaced at the top and
 105 110 115 120 125 130

back edges of the blade so as to leave a substantial amount of metal between them, thus overcoming any tendency to weaken the blade by the provision of the slots therein.

5 If desired, I may use the ordinary screws employed for fastening the blade in the handle.

Having thus fully described the invention, what I claim as new, and desire to secure by
10 Letters Patent is:

1. In a device of the class described, a saw blade having a transverse slot in its back edge and a plurality of curved slots opening through its rear end edge, each of said curved
15 slots being struck from a center positioned near the lower end of said transverse slot, a handle provided with studs adapted to enter the curved slots and the transverse slot, whereby the blade and the handle are fitted
20 into interlocking relation by a swinging movement of one part relative to the other part, a notch in the saw blade, and an automatic locking mechanism normally occupying a fixed position on the handle and adapted
25 ed for engagement with said notch for locking said blade and handle against relative movement.

2. In a device of the class described, a saw blade having a transverse slot in its back
30 edge and a plurality of curved slots opening through its rear end edge, each of said curved slots being struck from a center positioned near the lower end of said transverse slot, and each slot having a downwardly extending portion offset to the curved portion thereof, a handle provided with studs adapted to enter the transverse and curved slots, whereby the blade and the handle are assembled into interlocking engagement by a
35 swinging movement and by a subsequent sliding movement of one part relative to the other part, a notch in the saw blade, and an automatic locking mechanism having a sup-

porting member which occupies normally a fixed position on the handle, said locking
45 mechanism being positioned for engagement with the notch and operating to lock the handle and the blade from relative movement.

3. In a device of the class described, a handle provided with a kerf and with a groove, the latter being dovetailed in cross section, a blade occupying said kerf of the handle, a casing fitted snugly in said dovetailed groove of the handle, means for securing the casing
55 fixedly in position in the handle, and a locking member supported in the casing and interlocking with the blade.

4. In a device of the class described, a handle provided with a kerf and with a groove, the latter being dovetailed in cross section, a slotted blade occupying said kerf, locking means fixed in the handle and engaging the slots in the blade, a casing occupying the groove in the handle, means for securing the casing fixedly in position, and locking mechanism coöperating with said casing for securing the blade to the handle.

5. In a device of the class described, a handle provided with a saw blade kerf and with a
70 groove which opens into said kerf, said groove being dovetailed in cross section, a slotted blade in said kerf, locking members in the handle and engaging the slots of the blade, a casing fitting snugly in the groove of the handle, means for securing the casing from lengthwise movement, and a spring-actuated locking member held in said casing and adapted for engagement with said blade.

In testimony whereof I have signed my
80 name to this specification in the presence of two subscribing witnesses.

THOMAS P. J. COLEMAN.

Witnesses:

JAS. H. GRIFFIN,
H. I. BERNHARD.