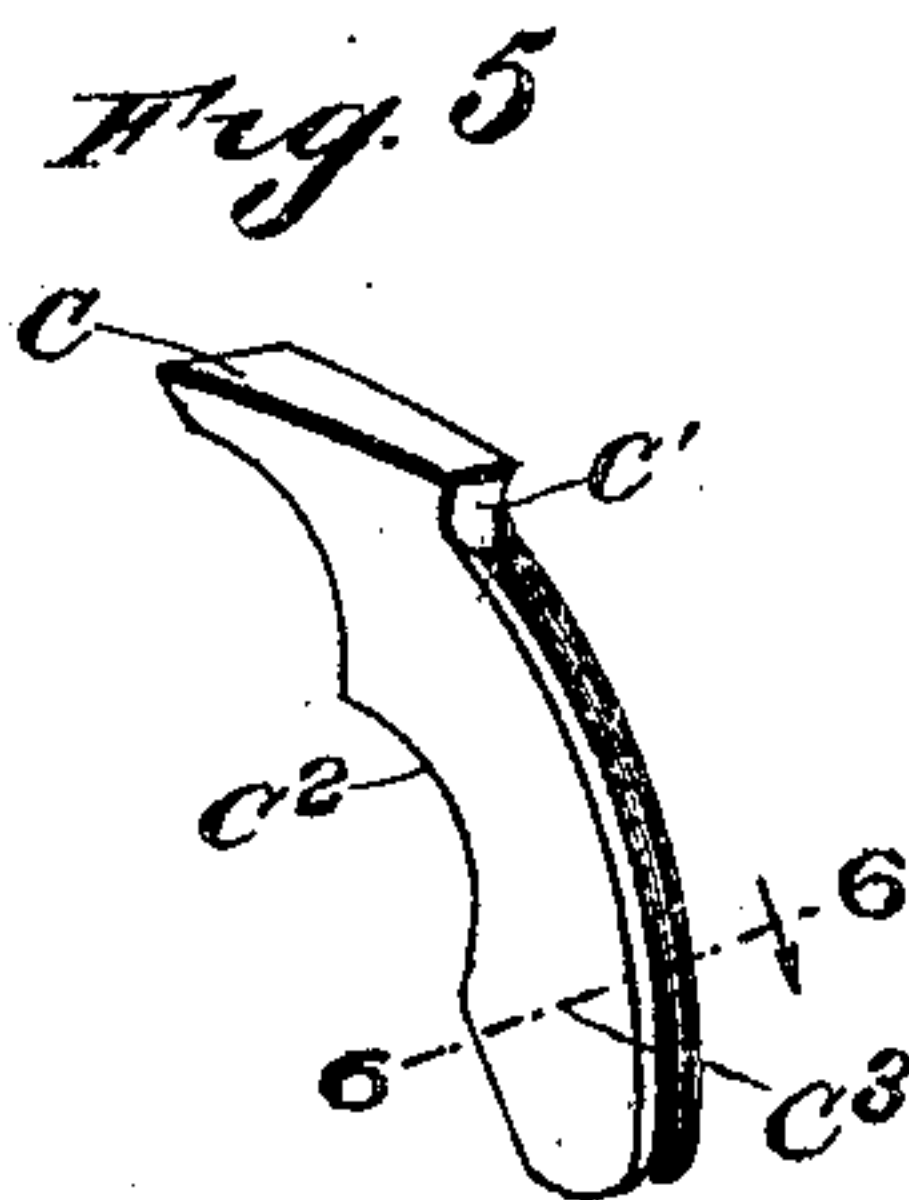
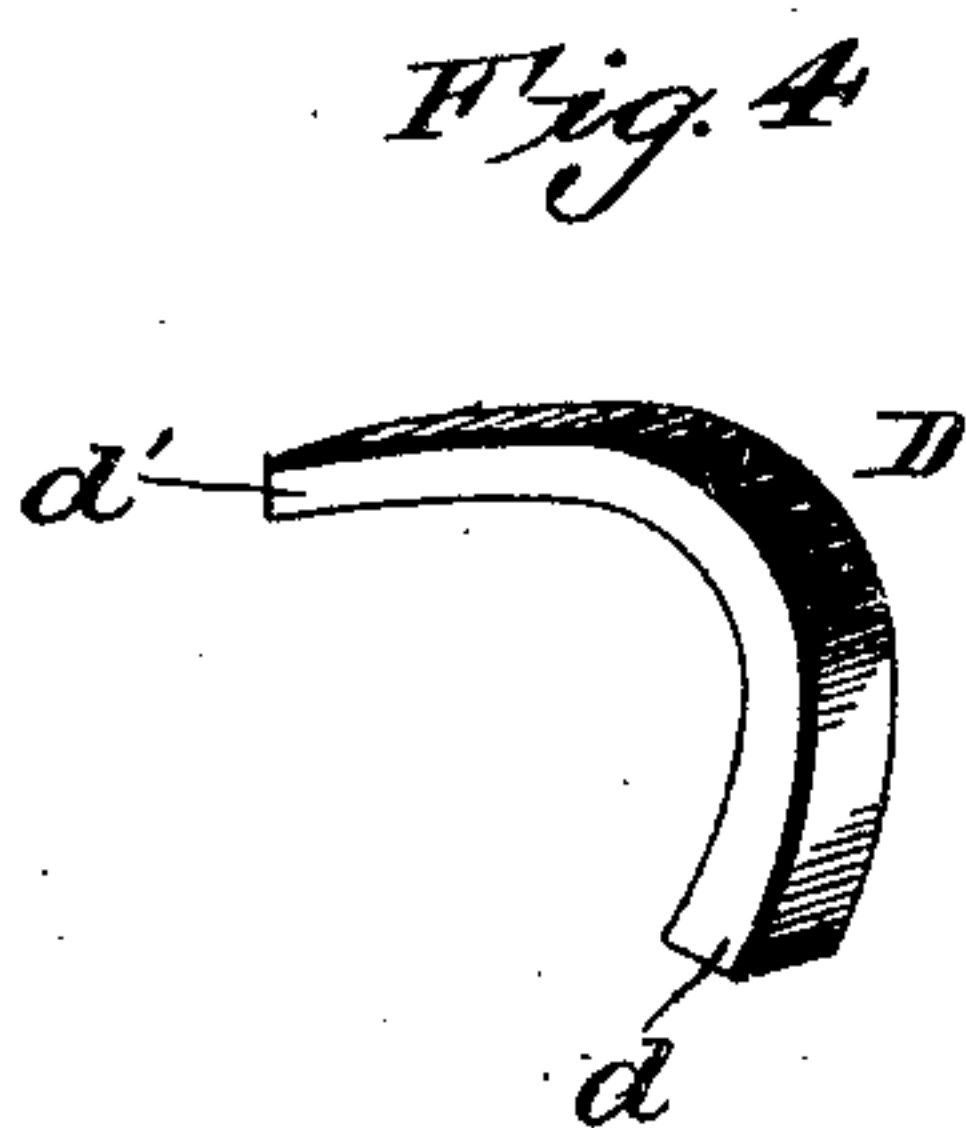
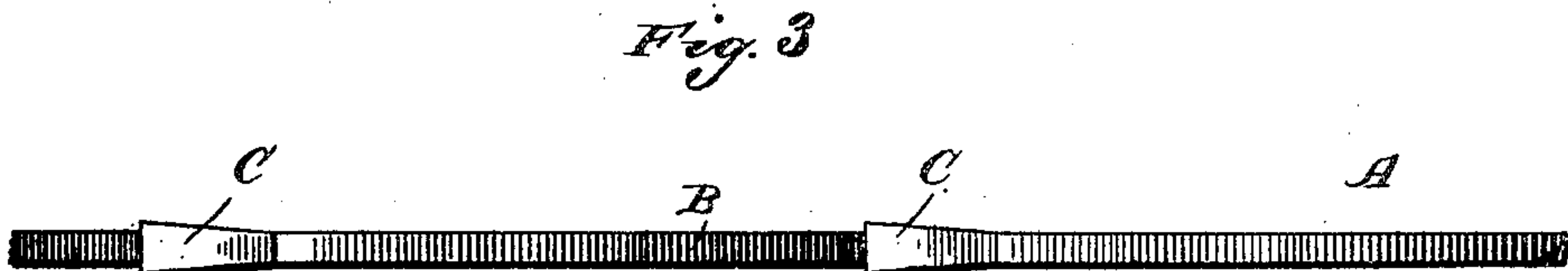
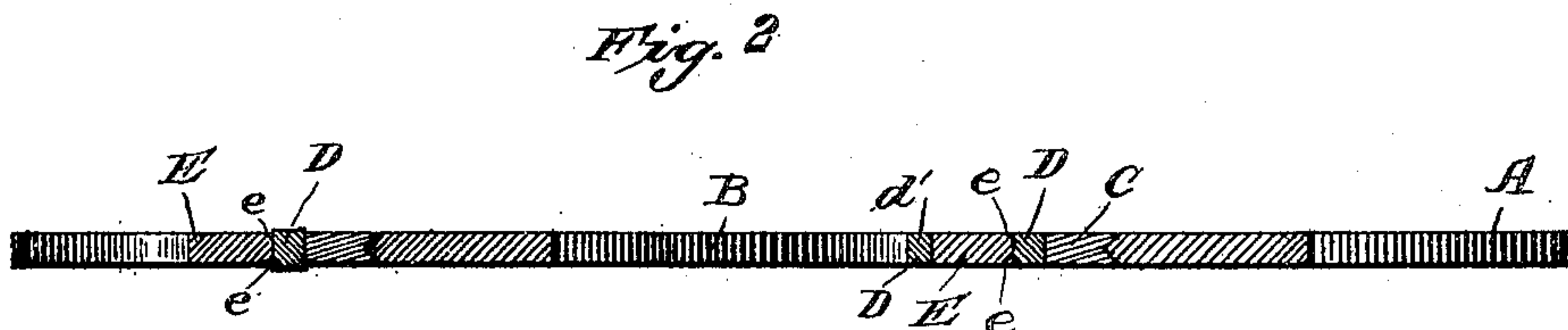
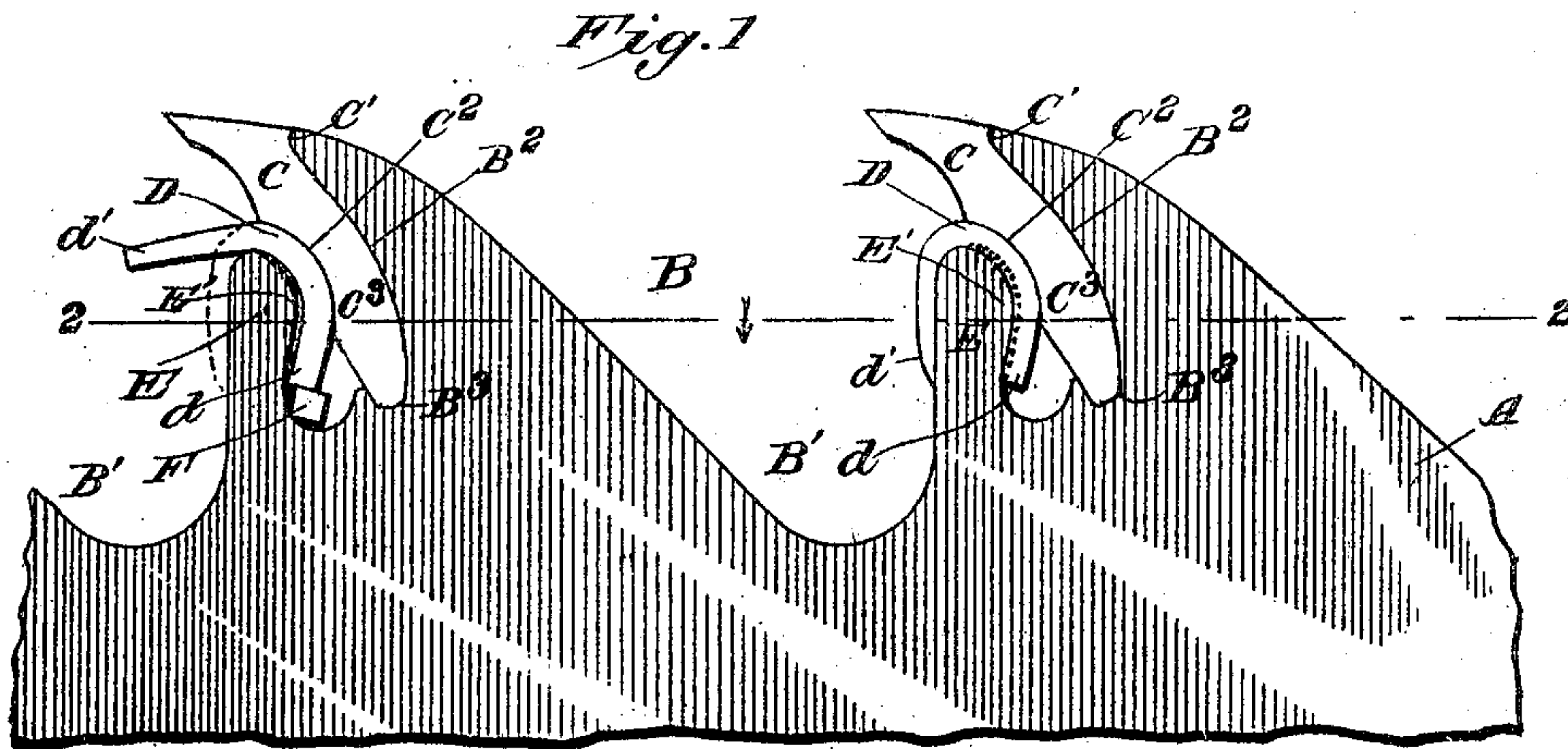


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UNITED STATES PATENT OFFICE.

CALVIN DILKS, OF ALLOWAY, NEW JERSEY.

SAW.

No. 797,947.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed April 20, 1905. Serial No. 256,607.

To all whom it may concern:

Be it known that I, CALVIN DILKS, a citizen of the United States, and a resident of Alloway, in the county of Salem and State of New Jersey, have made certain new and useful Improvements in Saws, of which the following is a specification.

My invention is an improvement in saws, capable of application to band or circular saws, as desired; and it consists in certain novel constructions and combinations of parts, as will be hereinafter described and claimed.

In the drawings, Figure 1 is a side elevation of a portion of a saw provided with my improvement. Fig. 2 is a cross-section on about line 2 2 of Fig. 1. Fig. 3 is an edge view of the saw. Fig. 4 is a detail perspective view of the key. Fig. 5 is a detail perspective view of the bit, and Fig. 6 is a cross-section of the bit on about line 6 6 of Fig. 5.

The blade A has the throats B, whose bases B' form the gullets and whose rear walls B² form the seats for the bits C. The bits C are shouldered near their outer ends to bear at C' against the blade A, and a stop-surface B³ is also provided for the inner ends of the bits C, so the said bits are braced both at their inner ends and near their outer ends, as will be understood from Fig. 1 of the drawings.

The bits C are provided in their front faces with recesses C², preferably curved, as shown, and forming seats for the keys D and also providing an enlarged inner end C³ on the bit, by which the latter may be locked to its seat by the key when applied as shown in Fig. 1.

The tongue E projects from the body of the blade A into the throat B in advance of the seat B² for the bit and forms an abutment for the key when the latter is applied as shown in Fig. 1. This tongue E projects outwardly to a point opposite the recess C² of the bit C, which is enlarged slightly at E' in order to form an undercut surface for engagement by the enlarged end of the key D when the latter is applied as shown in Fig. 1. This key D may be of any suitable malleable material, such as malleable steel, is made larger at its inner end d, gradually tapers toward its opposite end or point d', and is preferably made of a width slightly greater than the thickness of the tongue E, as best shown in Fig. 2, so that after the key has been applied, driven to locked position, and bent as indicated in dotted lines, Fig. 1, it may be hammered on its opposite sides to cause it to interlock with

the chamfered edges e of the tongue E and to bring it to approximately the thickness of the said tongue E, as best shown at the right in Fig. 2 of the drawings.

In applying the bits and keys the bit may be fitted to place, as shown in Fig. 1, and the key be slipped laterally to the position shown at the left in Fig. 1 between the bit and the tongue E and may then be driven by suitable force applied to its butt-end to the position shown at the left in Fig. 1, in which its tapered form may be caused to bind the bit C firmly against the seat-wall B² and to lock the said bit in place by the engagement of the key with the abutment formed by the tongue E. A block F or other suitable stop may then be applied to the butt-end of the key D and the latter be bent at its point end from the position shown in full lines at the left in Fig. 1 to the position indicated in dotted lines at the same point, whereby the key will be locked securely in place to hold the bit in position for use. This bending of the point end of the key down over the front face or edge of the tongue is important apart from the locking function referred to, as it forms a cover for the front edge of the said tongue and protects the same against wear, the wear of the sawdust entering the throat coming upon the key, which can be replaced at a small cost, as will be readily understood.

It will be noticed that when the bit is held by the key, applied as before described, it will not only be secured in place, but it will be bound so firmly to the saw-blade as to avoid any chattering or looseness which would in any way interfere with the efficiency of the saw, and at the same time the parts are so applied and held that the keys and bits can be readily removed whenever desired for any purpose. The tongue E is important, as by projecting in advance of the seat-wall for the bit it forms an abutment which is an integral part of the saw-blade and enables me to secure the bit without any separate fastening devices, except the applied key, as before described.

The construction is simple, durable, and will be found to efficiently serve the purpose for which it is designed.

In practice the application of the bits and keys, as described, will not interfere in any appreciable degree with the tension of the saw at the rim thereof; nor will it detract to any material extent from the ring of the saw-blade in operation.

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

1. The combination substantially as herein described of the saw-blade having a throat whose rear wall forms a seat for a bit, and provided in advance of said wall with a tongue projecting outwardly into the gullet and spaced apart from said seat-wall and having its wall adjacent to said seat undercut, the bit fitted between said seat-wall and tongue and having its front edge opposite the tongue recessed and the key made larger at its butt-end and tapering thence toward its point end and fitted in the space between the bit and the tongue whereby to secure the bit and having its point end bent or returned along the front edge of the tongue whereby to lock the bit in place and to form a protecting-cover for the front edge of the tongue as and for the purpose set forth.

2. The improvement in saws comprising the blade having a throat whose rear wall forms a seat for the bit, an abutment projecting into the throat in advance of said wall, a bit fitting between the wall and abutment and a key operating between the bit and abutment and bent into locking engagement with the abutment, substantially as set forth.

3. The combination of the saw-blade having a seat-wall for a bit, an abutment in advance of said seat-wall, a bit fitting against said seat-wall and a key operating between the bit and abutment and having its point end bent along the front wall of the abutment whereby to protect the same from wear, substantially as set forth.

4. The combination of the saw-blade having a seat-wall for the bit and an abutment in advance thereof, the bit fitting said seat-wall and the key initially of greater thickness than

the saw-blade and applied between the bit and abutment and swaged laterally into engagement therewith and bent longitudinally over the outer end of said abutment substantially as set forth.

5. The combination of the saw-blade having a throat whose rear wall forms a seat for the bit, and said blade being provided with an integral tongue projecting into the throat in advance of the said seat-wall, the bit fitting against the seat-wall and having opposite the said tongue a recess for the locking-key, and the locking-key operating between the tongue and bit and bent at its point end along the front edge of the tongue, substantially as set forth.

6. The combination of the saw-blade having a seat-wall for a bit and an abutment-tongue in advance thereof and having its edges chamfered, the bit fitting against said seat-wall and recessed in its edge opposite the abutment-tongue and the key operating between the bit and abutment-tongue and initially of greater thickness than the said tongue and swaged laterally into locking engagement with the chamfered edges thereof and bent longitudinally over the outer end of said abutment-tongue, substantially as set forth.

7. A saw-blade having a throat whose rear wall forms a seat for the bit and having an integral tongue projecting into the throat in advance of the said seat-wall, the bit fitting against said seat-wall and the key operating between the bit and the integral tongue in advance thereof and bent into engagement with the outer end of said tongue substantially as set forth.

CALVIN DILKS.

Witnesses:

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