

(No Model.)

E. M. COLE.

METHOD OF MANUFACTURING CORK SOLE SHOES.

No. 543,377.

Patented July 23, 1895.

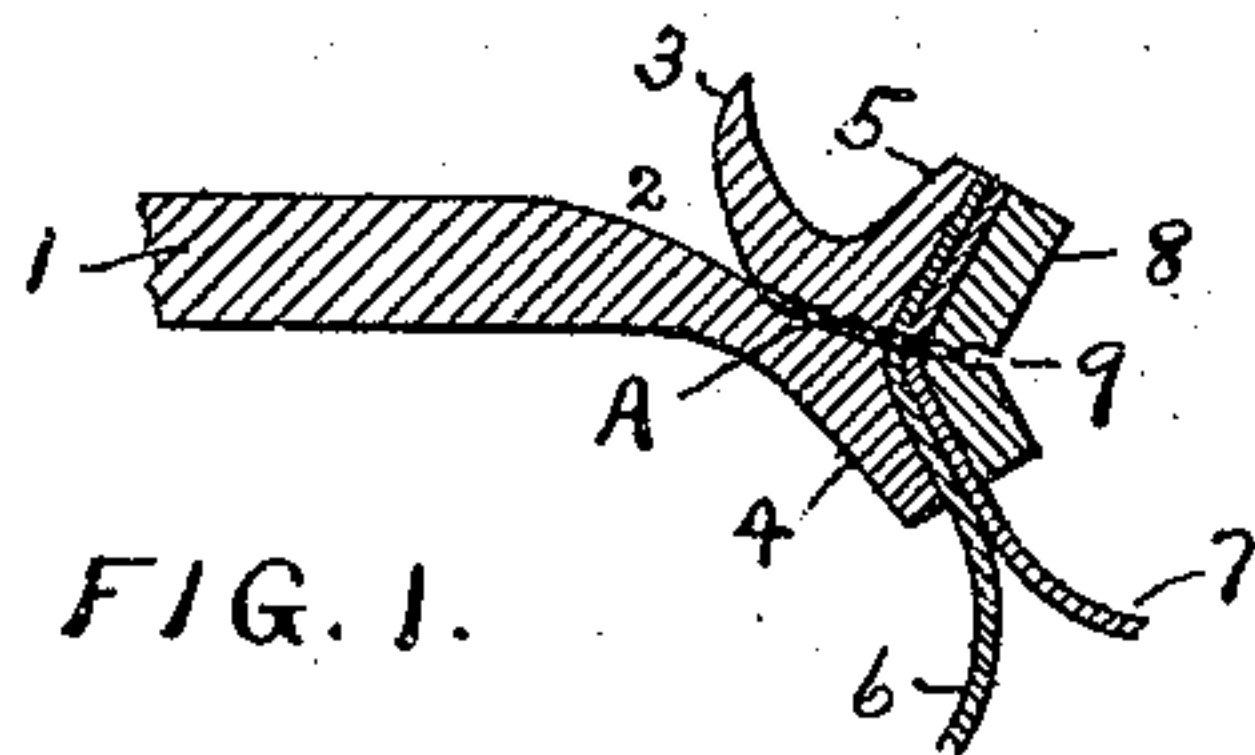


FIG. 1.

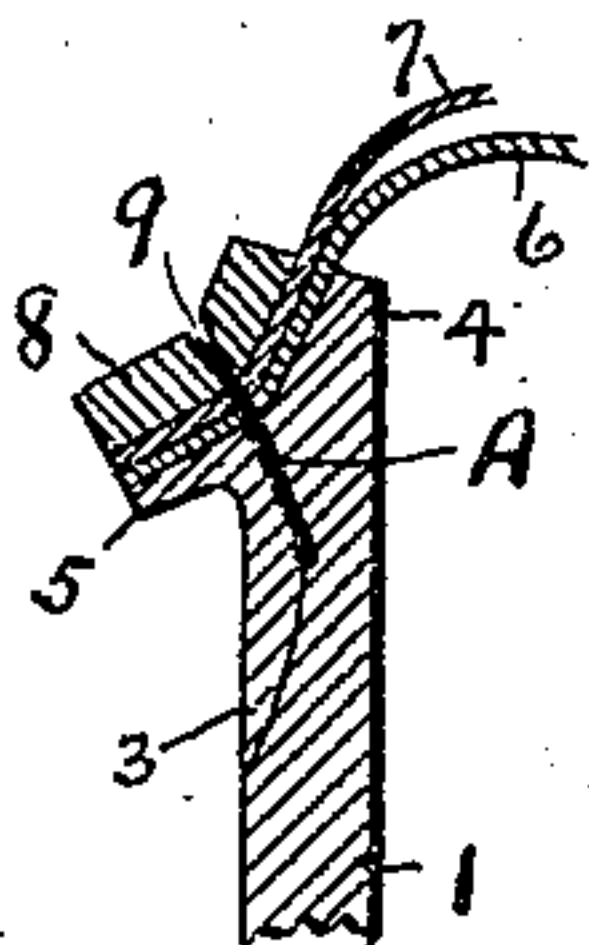


FIG. 2.

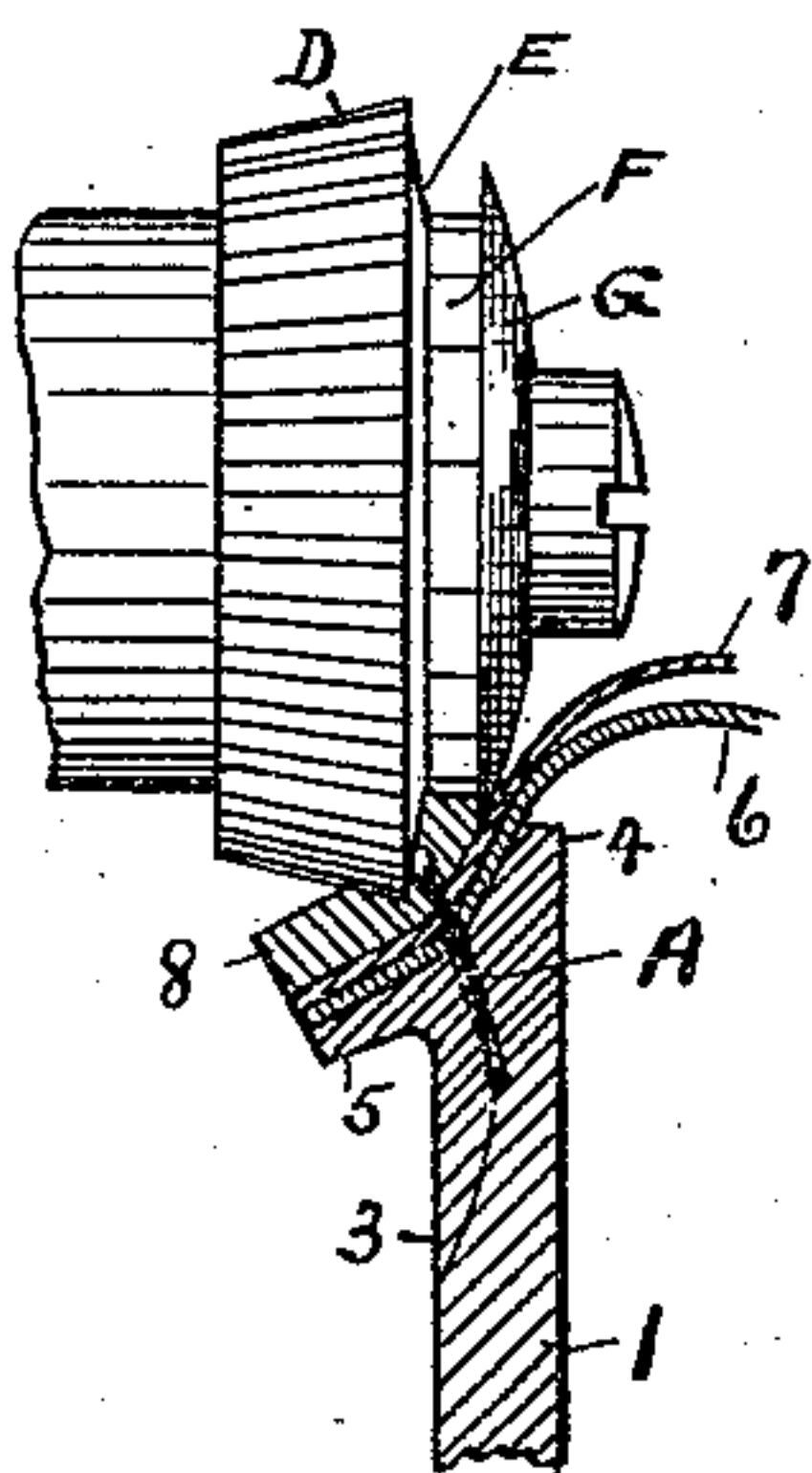


FIG. 3.

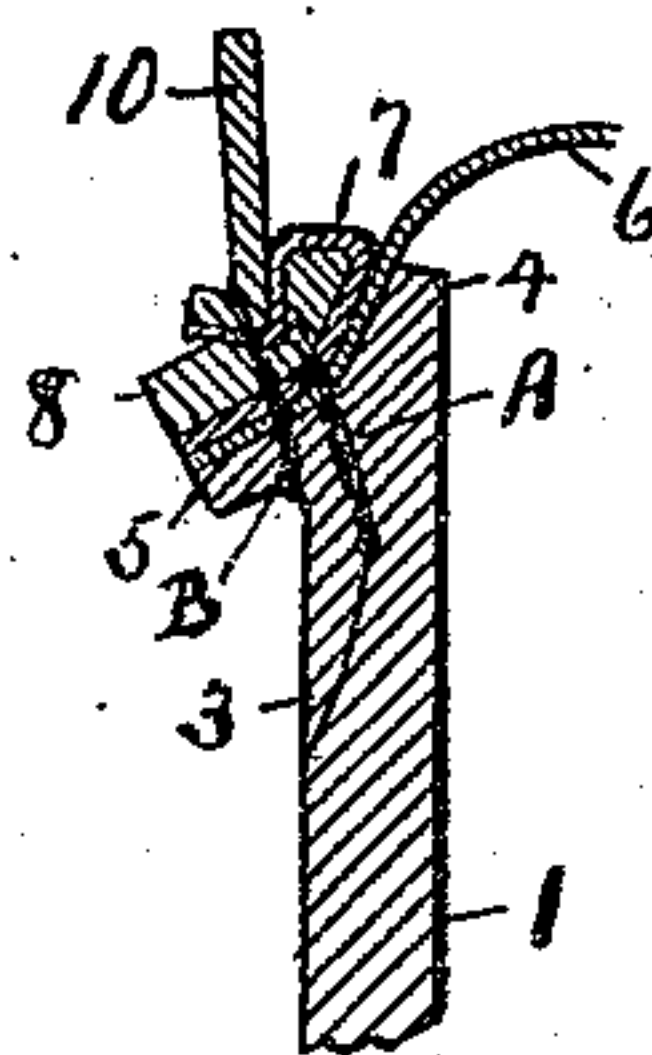


FIG. 4.

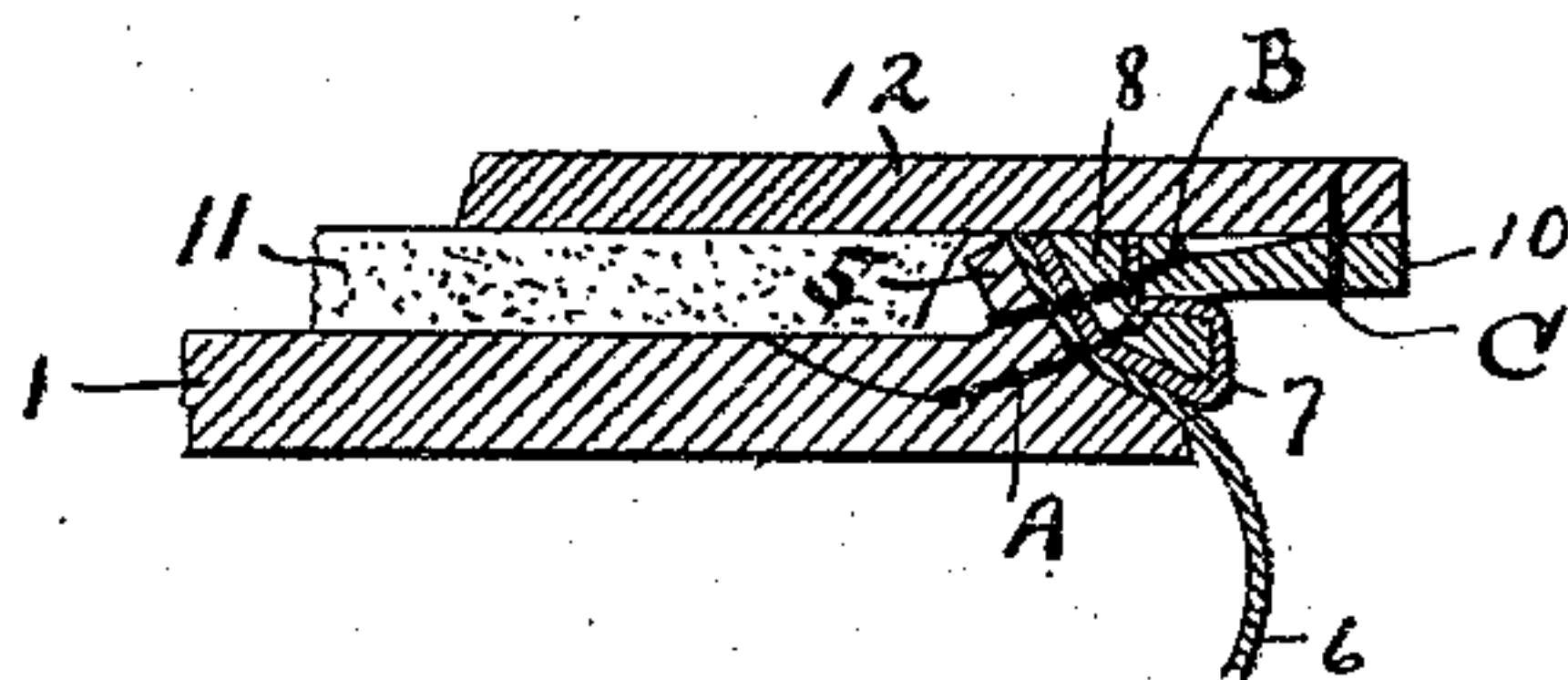


FIG. 5.

WITNESSES:

B. A. Mahony
Lillian A. Redfield

INVENTOR

Edward M. Cole

BY

Casper L. Redfield.
ATTORNEY.

UNITED STATES PATENT OFFICE.

EDWARD M. COLE, OF CHICAGO, ILLINOIS.

METHOD OF MANUFACTURING CORK-SOLE SHOES.

SPECIFICATION forming part of Letters Patent No. 543,377, dated July 23, 1895.

Application filed November 3, 1894. Serial No. 527,823. (No model.)

To all whom it may concern:

Be it known that I, EDWARD M. COLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in the Method of Manufacturing Cork-Sole Shoes, of which the following is a specification.

My invention relates to the work performed on and around the cork welt, and has for its object a method or process of performing such work to the end that the shoe shall have a more uniform appearance and shall be more substantial and durable. One of the results of my process of making the shoe is that the bead made by the cork welt and its casing is always of a uniform thickness and always smooth and well finished on its outer surface. Another result is that the channel formed in the cork welt after it has been secured to the inner sole serves as a guide for the awl and needle in the second sewing, thereby insuring that this second sewing shall be always at the proper place and uniform in strength.

In the accompanying drawings, Figure 1 illustrates a portion of the inner sole and adjacent parts as it appears at the time of the first sewing. Fig. 2 shows the same parts when permitted to resume their normal condition after the first sewing. Fig. 3 shows the tool in the act of grooving and burnishing the cork welt. Fig. 4 shows the appearance at the time of the second sewing, and Fig. 5 shows the appearance after the cork has been put in place and the outer sole sewed on.

The inner sole 1 is split at 2 and has the lip 3 turned up, as shown in Fig. 1, so as to furnish a groove in which the sewing is done. It is also channeled at the edge and has the lips 4 and 5 pressed apart. In this channel is placed the upper 6, the casing 7, and the cork welt 8, in the latter of which is a small groove 9 that serves as a guide in sewing. The first line of sewing, marked A, is then run in to secure these parts together. When the lips 3 and 4 are pressed back to their normal position after this sewing the inner sole and the connected parts assume the position shown in Fig. 2. The shoe is then taken to a machine on which is carried a revolving tool. This tool is composed of a cutter D, a shield E, a burnisher F, and a guard or guid-

ing disk G. In pressing the shoe against this tool, the edge of the disk G enters the joint between the cork welt 8 and the casing 7 and acts as a guide to determine the exact position of the channel made by the cutter D, and consequently the exact thickness of the burnished face of the cork welt 8.

The distance between the disk G and the cutter D is such as to cause the latter to clear the sewing A, and the thin shield E serves as an additional protection to prevent the cutter from tearing the material in the immediate proximity to this sewing. The casing 7 is then lapped over the burnished face of the cork welt 8 and rubbed down into the channel formed by the cutter D. The bent edge of the ordinary welt 10 is also placed in this channel on top of the casing 7, and the second line of sewing B is then run in, as shown in Fig. 4. It may be observed in passing, that in any line of sewing made on the ordinary machine for this purpose, the awl and needle always follow the line of least resistance, which is the thinnest place. In shoes as heretofore made, this thinnest place is not always at a uniform distance from the edge of the cork welt, but varies more or less all of the way around, with a result that the sewing is "wavey" and uneven, and less substantial at some places than at others.

By making a channel that forms one side of the face of the cork welt and is guided in the machine by the other side, I not only secure an absolutely uniform face for the cork welt, but I determine the line of sewing at the place at which it is most desirable to have it. By burnishing the face of the cork welt before the casing is wrapped around it, I secure a much smoother face and consequently a much better appearing shoe than it is possible to obtain without doing so. After the second sewing the uneven edges of the parts 5, 6, 7, and 8 are trimmed off where they come into contact with the outer sole, and the cork 11 and the outer sole 12 are put in place and the latter sewed at C to the welt 10, as in ordinary practice.

What I claim is—

1. The process of manufacturing cork-sole shoes which consists; first, in sewing the inner sole, the upper, the casing and the cork-welt together as in the ordinary manner;

second, in channeling the cork-welt and burnishing the edge thereof after it has been sewed in position; third, in placing the loose edge of the casing and the edge of the welt in said channel and securing the said parts to the inner sole by a line of sewing that passes through all of said parts on the line of the channel in said cork-welt; and fourth, in securing the cork and the outer sole to the other parts in the ordinary manner.

2. In the manufacture of cork-sole shoes, the process of securing a smooth and uniform face on the cork-welt which consists in channeling said cork-welt at one side of its face after it is secured in position, said channel being at a definite and predetermined distance from the opposite side of the face, and in burnishing said face at the same time that the channel is formed.

3. In the manufacture of cork-sole shoes, the process of securing a uniform face on a cork-welt which consists in running a channel along one side of the face of said cork-welt after it is secured in position, which channel is at a definite and predetermined distance from the opposite side of said face.

4. In the manufacture of cork-sole shoes, the method of securing a uniform line of sewing through the welt, the cork-welt, the inner sole and the intervening parts which consists; first, in securing the cork-welt, the inner sole and the intervening parts together; second, in forming a channel in said cork-welt after it has been secured in place for the purpose of obtaining a uniform line of least resistance for the needle during the second sewing; and third, in running the second line of sewing through the parts laid in this channel and along the depression caused thereby.

5. In the manufacture of cork-sole shoes, the method of securing a uniform line of second sewing by channeling the cork welt after it has been secured in position so as to obtain a line of least resistance in uniform relationship to adjacent parts, and in running said second sewing through the parts laid in said channel and along said line of least resistance.

EDWARD M. COLE.

Witnesses:

JOHN S. STERLING,
THOS. B. BROWN.