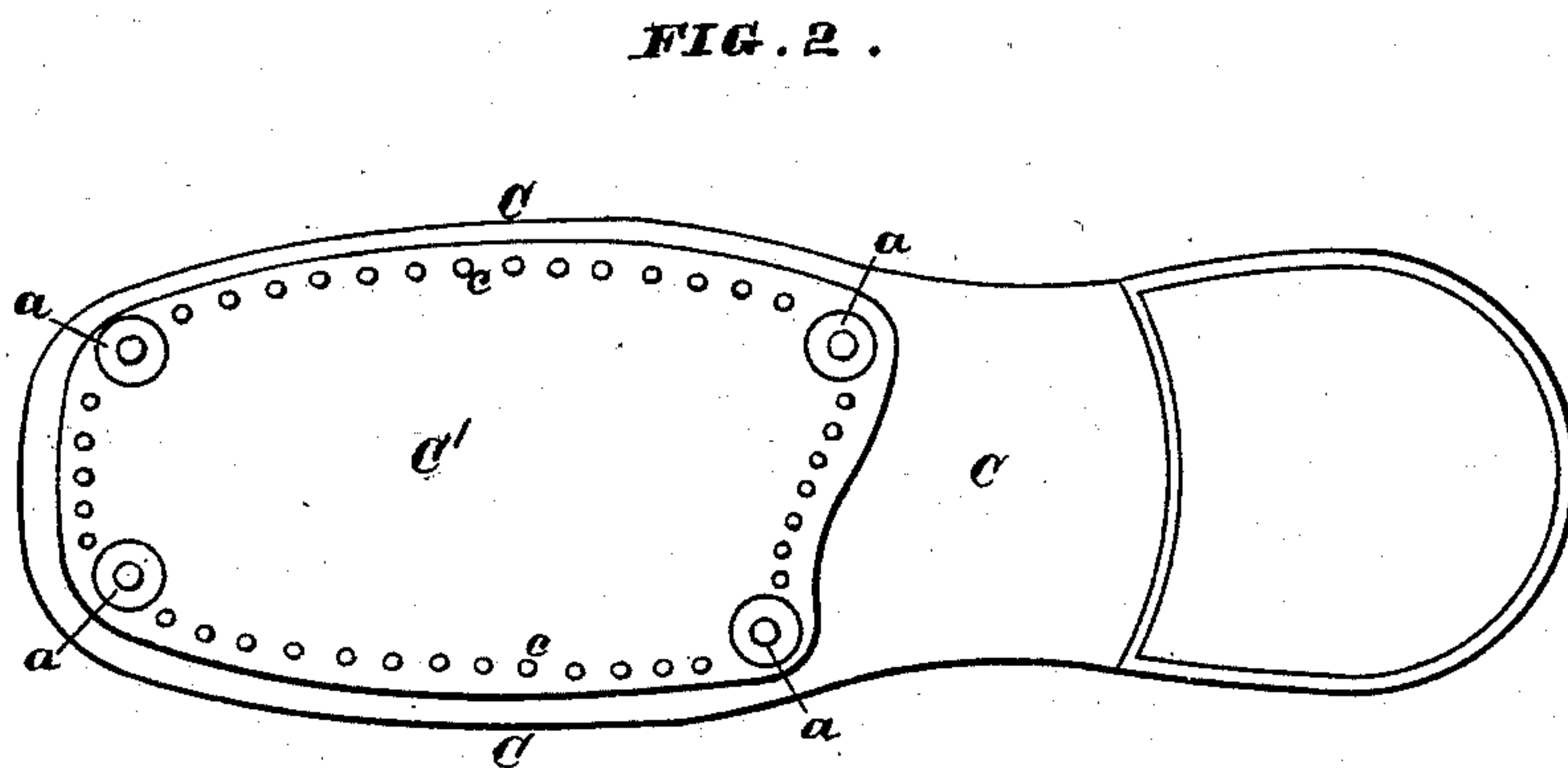
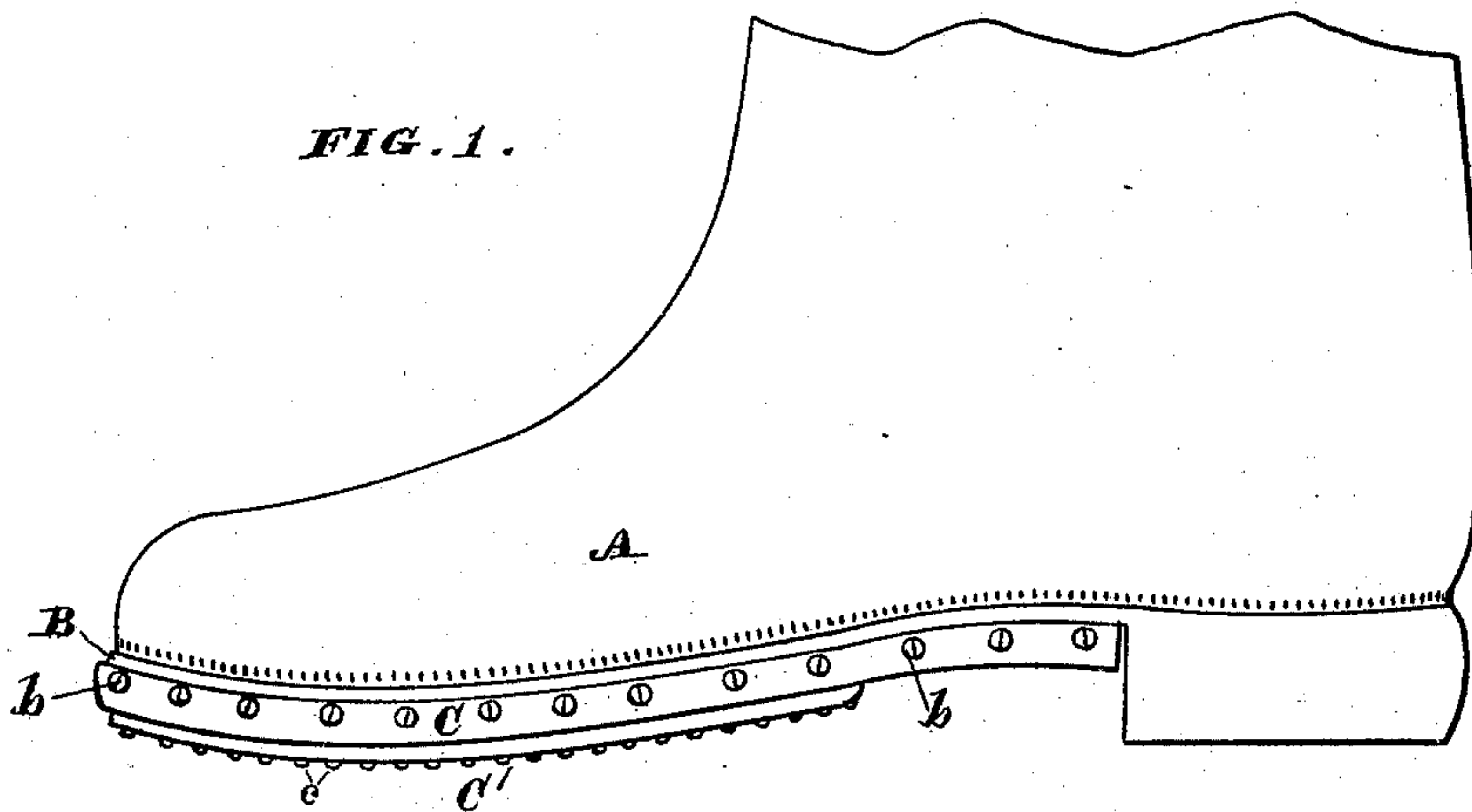


C. H. BEACH.
Soles for Rubber-Boots.

No. 219,672.

Patented Sept. 16, 1879.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHARLES H. BEACH, OF ALTHOUSE, OREGON.

IMPROVEMENT IN SOLES FOR RUBBER BOOTS.

Specification forming part of Letters Patent No. **219,672**, dated September 16, 1879; application filed July 17, 1879.

To all whom it may concern:

Be it known that I, CHARLES H. BEACH, of Althouse, county of Josephine and State of Oregon, have invented an Improved Sole for Rubber Boots; and I hereby declare the following to be a full, clear, and exact description thereof.

The object of my invention is to provide a leather sole for rubber boots; and my improvements consist in an improved method of attaching the leather sole to the rubber boot, by which the sole is firmly secured in place without injuring the rubber boot or causing it to leak.

In mining regions of the Pacific slope, where rubber boots are necessary to the miners in pursuing their avocations, trouble is experienced from the soles wearing or cutting rapidly out from being in constant contact with sharp particles of rock.

The rubber soles when worn smooth are also quite slippery, and the miners have adopted a custom of tacking on pieces of leather to the soles to prevent slipping and to preserve the boot. The method usually adopted is to fasten the leather sole either with screws or tacks directly to the bottom of the boot. In both cases, when the leather sole is only about half worn out, the screws or tacks work loose and cause the boots to leak. The miners therefore have to go either with wet feet or procure new boots more frequently than is advisable on the score of expense.

To obviate this difficulty I have devised a means of attaching the leather sole to the boot in a peculiar manner, so that it will be firmly attached and not be liable to work loose or cause a leak in the boot; and this I accomplish by fastening the leather sole to the boot without piercing or injuring in any way the rubber sole of the boot.

In the accompanying drawings, Figure 1 is a side view of my boot. Fig. 2 is a view of the sole.

Let A represent the foot of the rubber boot, and B its ordinary sole.

I form a leather main sole, C, large enough to lap or turn up all around the edge of the rubber sole B of the boot. To this main sole C, I fasten a tap-sole, C', either with rivets *a* or

screws, or tack the two together, the tap-sole being smaller and only covering the bottom of the boot, the same as an ordinary tap. I then fasten the main sole C to the edge of the rubber sole B with small screws or tacks *b*, which are put in horizontally to the rubber sole, thus attaching both soles to the boot.

By this method there is no strain or wear on the leather of the main sole or the screws with which said main sole is fastened, so that the bottom of the rubber boot can never leak.

The bottom of the tap-sole C' may be filled with short tacks *c* which will not reach through into the rubber boot.

It will be seen that as the main leather sole is secured to the edge of the rubber sole, and the tap-sole to the said main leather sole, there are no vertical screws or rivets in the rubber sole at all. The wear all comes on the tap-sole, and even when it is worn down there are no screws leading into the rubber to become loose. A firm and strong leather sole is thus provided for the rubber boot, which is so secured to it as to protect the rubber and cause no leakage.

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

1. In combination with the sole B of the rubber boot A, the main leather sole C, lapped over the rubber sole and secured to the edge by the horizontal screws *b*, said sole C having the tap-sole C' secured to it by means of the rivets *a*, substantially as and for the purpose herein described.

2. The method of attaching the leather outer soles to the bottom of rubber boots, consisting in turning the edge of the leather sole up against the edge of the rubber sole, and securing it thereto by screws inserted horizontally through the overlapping parts of the leather sole and into the rubber sole, all substantially as set forth.

In witness whereof I have hereunto set my hand.

CHARLES H. BEACH.

Witnesses:

CHAS. HUGHES,

HORATIO SEMPKINS.