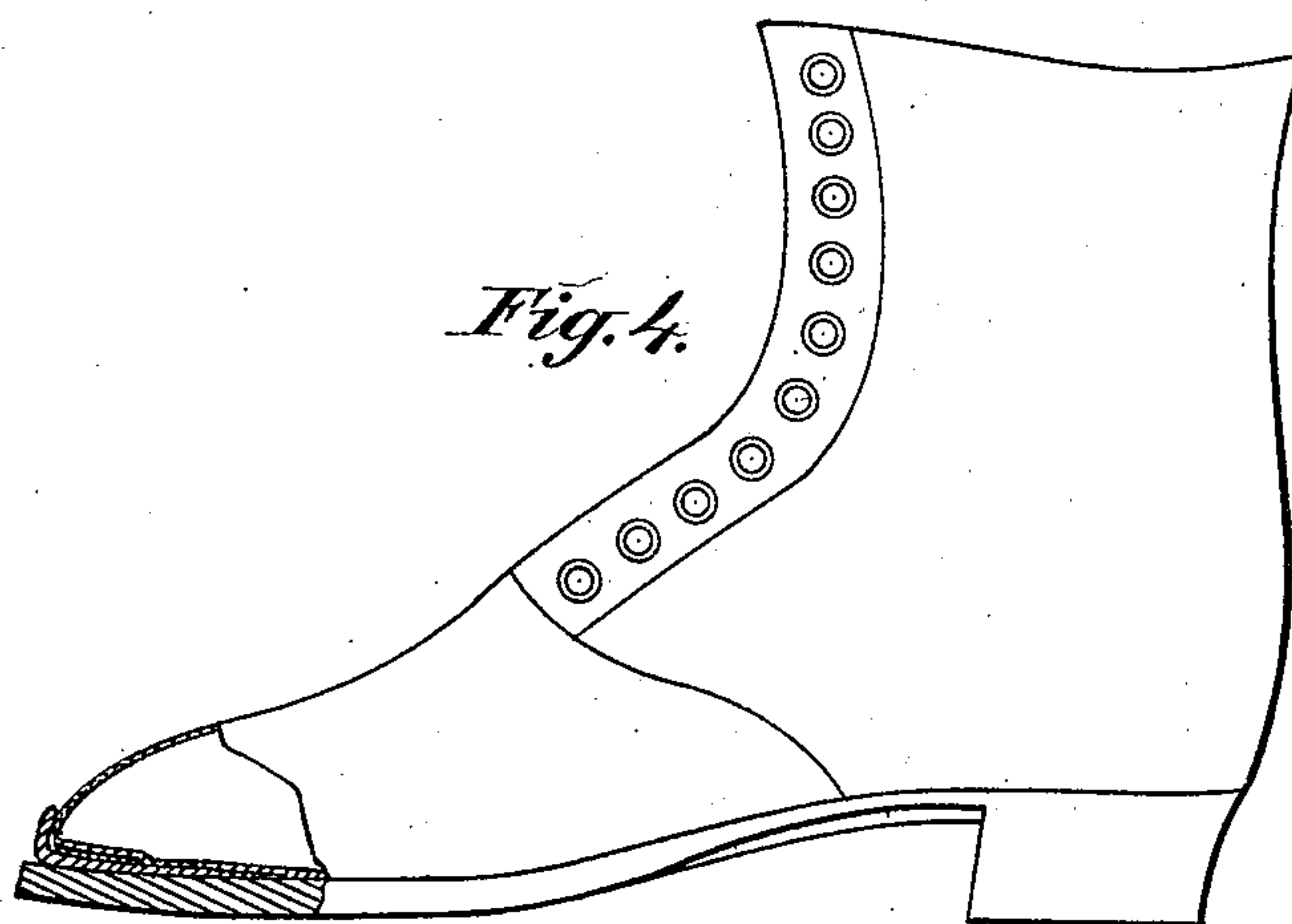
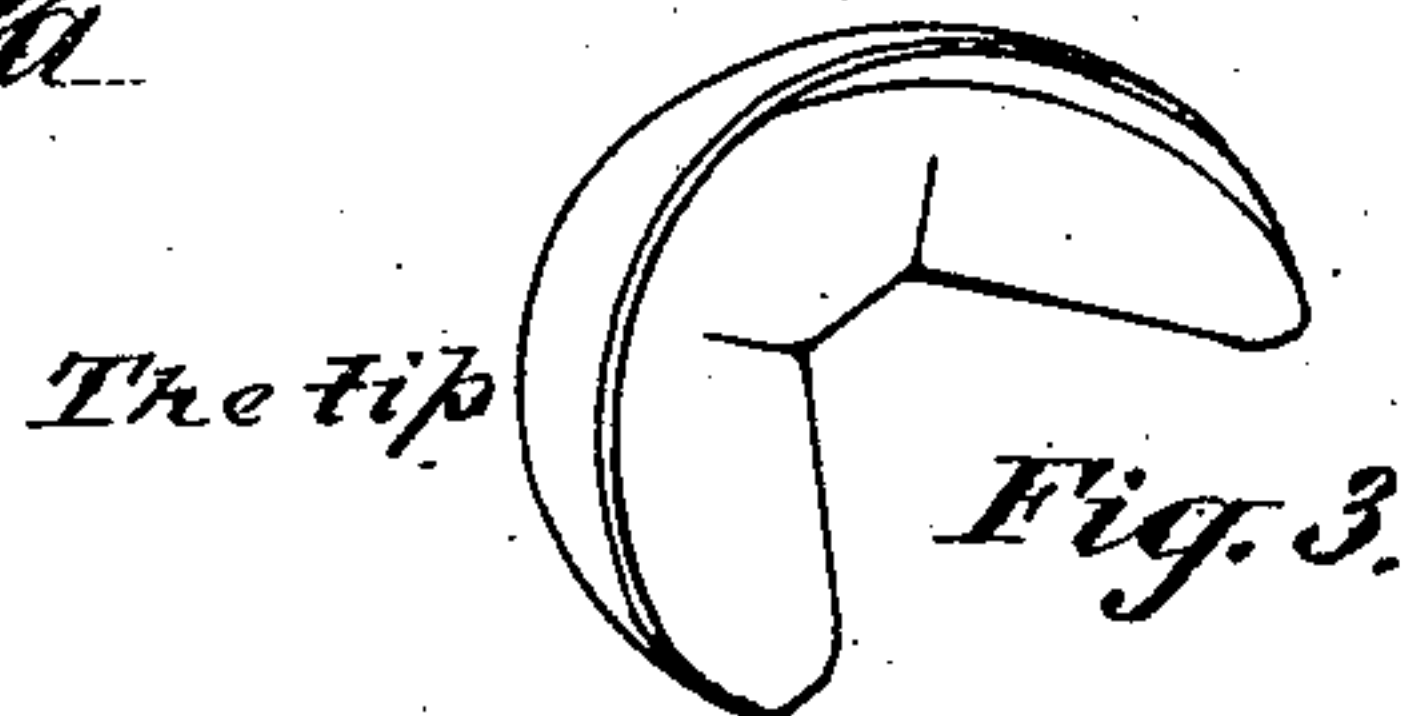
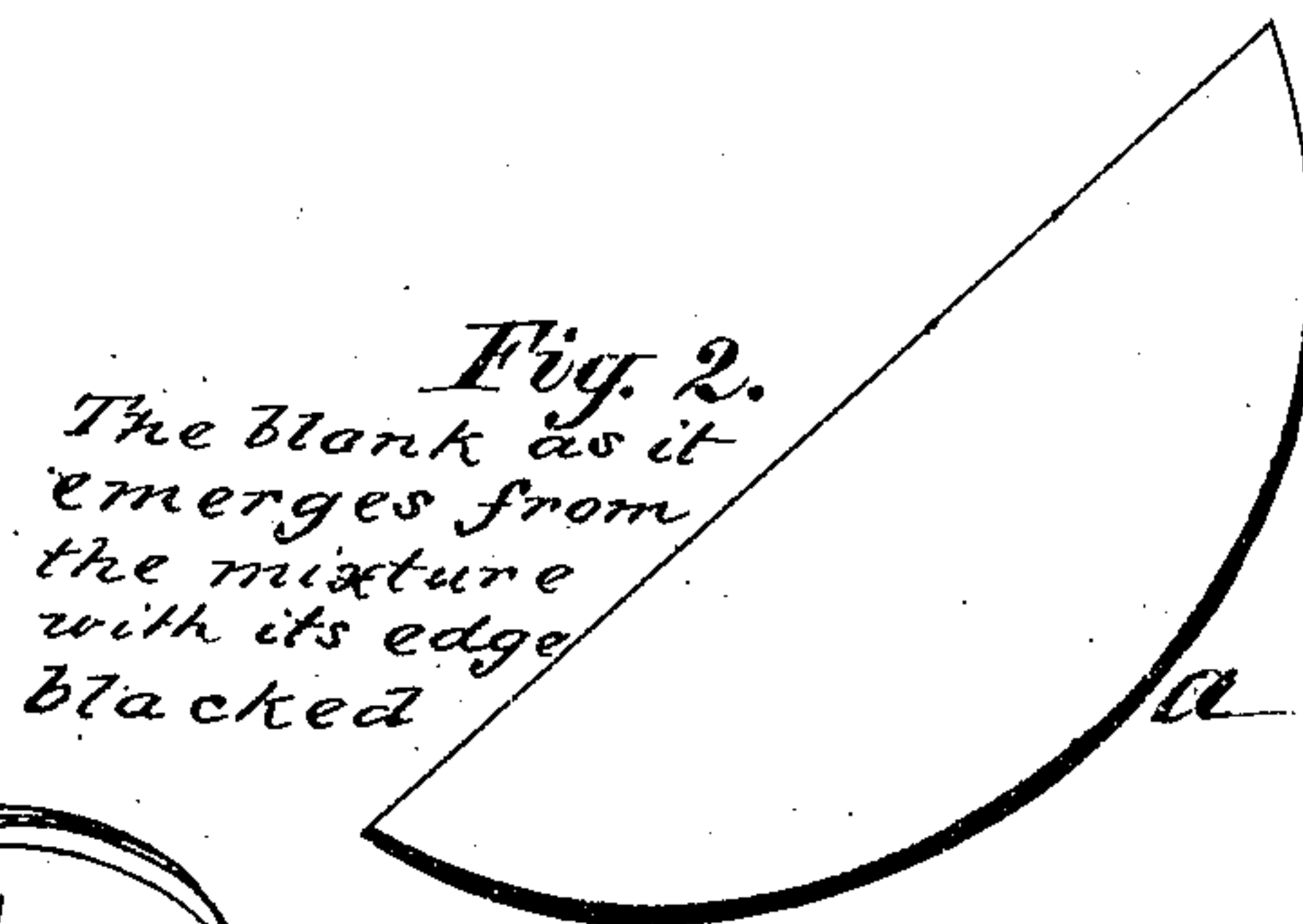
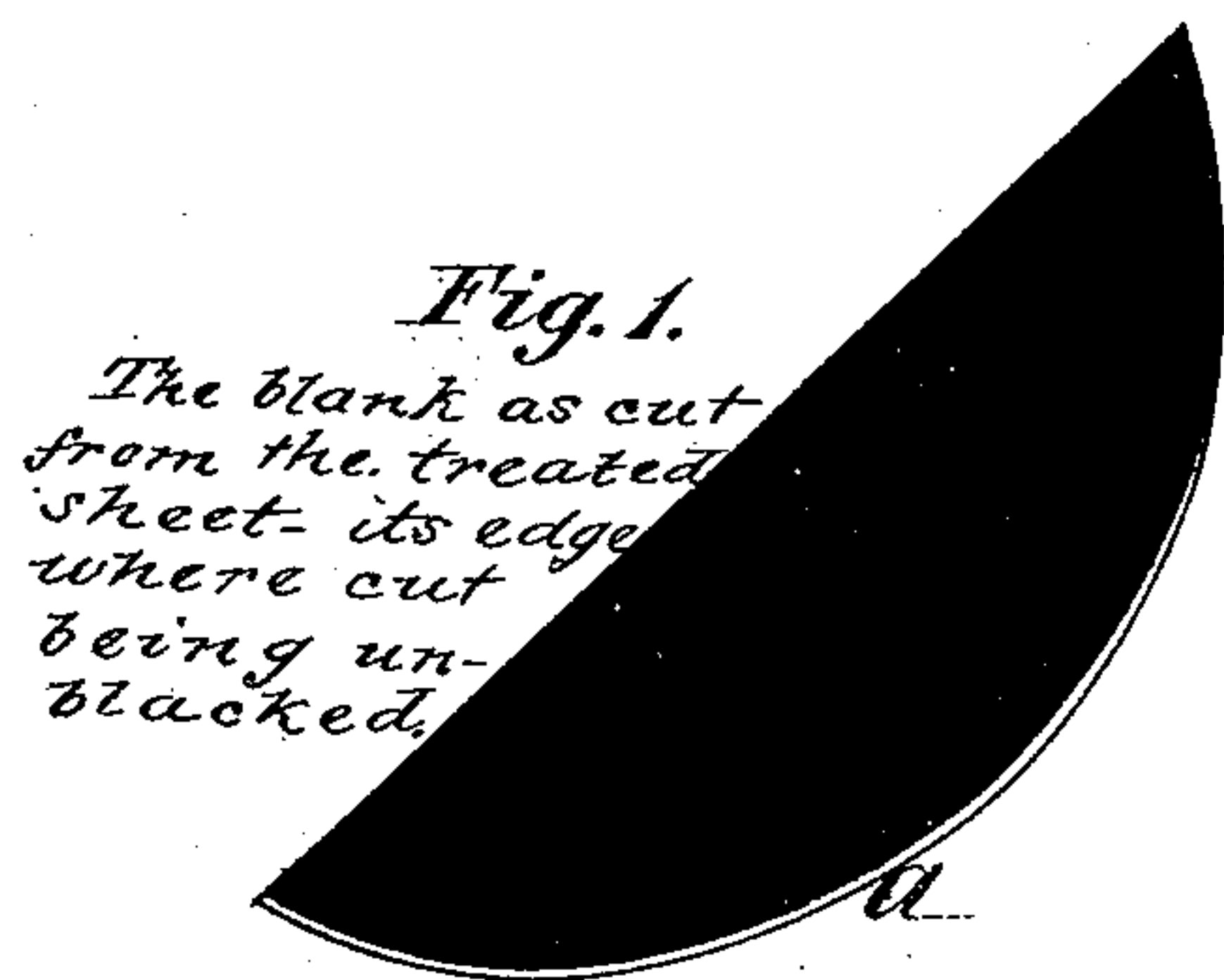


A. VAN WAGENEN.

MANUFACTURING TIPS FOR BOOTS AND SHOES.

No. 179,631.

Patented July 4, 1876.



Witnesses:

J. West Wagner.
J. A. Rutherford

Discoverer

Albert Van Wagenen
by Johnson & Johnson
Attys.

UNITED STATES PATENT OFFICE.

ALBERT VAN WAGENEN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MANUFACTURING TIPS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **179,631**, dated July 4, 1876; application filed June 24, 1876.

To all whom it may concern:

Be it known that I, ALBERT VAN WAGENEN, of Boston, in the county of Suffolk and State of Massachusetts, have discovered an Improvement in the Manufacture of Shoe-Tips, of which the following is a specification:

In producing my tip I take the ordinary rawhide of commerce, unhair it in the usual manner; then tan it as follows:

I use a tanning-liquor made from catechu, one-half ounce; nut-galls, three ounces; and extract of logwood, two ounces, to a gallon of water. In this liquor I cast the hide, and let it remain from two to twenty-four hours, according to the thickness of the hide. I take the hide thus tanned and treat it to finish the grain the same as if it were to be made into harness-leather, except that I use no oil—blackening the grain side in the usual manner and with the usual blacking. After this I cut the leather into suitable blanks. But the leather not being blackened through, the edges of these blanks are left, of course, not blacked. To blacken these edges the blanks are thrown into a vat containing the same material which was used in blackening the grain. They are left in this mixture a sufficient time to color the edges.

The blanks, while yet moist, or before they are entirely dry, are made into shoe-tips, in the ordinary form by pressure in hot dies.

The blanks may be cut from the original piece of leather and colored like harness-leather, as I have mentioned, both surfaces and edges at once. I, however, prefer the method mentioned by me in its different steps, because it entails less handling and simplifies the manufacture, and because the grain can be easier finished in a large sheet than in the small blanks.

I do not claim anything relating to the shape or form of the shoe-tip, since I am well aware of the Silverthorn patent for a formed tip;

but certain steps in my process of preparing the leather, and in forming the tip with hot dies, are of great value.

The liquor which I use tans very rapidly, and renders the leather very tough and solid, and by coloring the edge of the blank after it has been cut from a finished sheet I save the handling of each blank to color its front edge. By using hot dies, or dies heated by steam, I am enabled not only to condense the leather, but to obtain a bone-like and hard surface more capable of resisting wear and moisture than could be effected by any other molding means I know of, producing a tip resembling in quality bone or horn. I obtain a tip which has its edge colored without the unnecessary permeating through and through of the material from which the tip is made—which besides has a tendency to make the tips brittle.

The accompanying drawings show, in Figure 1, the blank as cut from a finished sheet, with its front edge *a* unblackened; in Fig. 2 the same blank with said edge blackened; in Fig. 3 the tip as formed by the hot dies, and Fig. 4 a shoe with my tip applied.

I use the drawings merely as diagrams illustrating my discovery. The tip is applied as other shoe-tips, and for the same purpose.

I claim—

The improved process of manufacturing shoe-tips from hides or skins, consisting of first treating the material with the tanning-solution named, then blackening the grain side, then cutting it into blanks and blackening their edges in the manner set forth, and, when partially dry, compressing the blanks into form by means of heated dies.

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

ALBERT VAN WAGENEN.

Witnesses:

A. E. H. JOHNSON,
J. W. HAMILTON JOHNSON.