

C. F. HILL.
Insole for Boots and Shoes.

No. 167,762.

Patented Sept. 14, 1875.

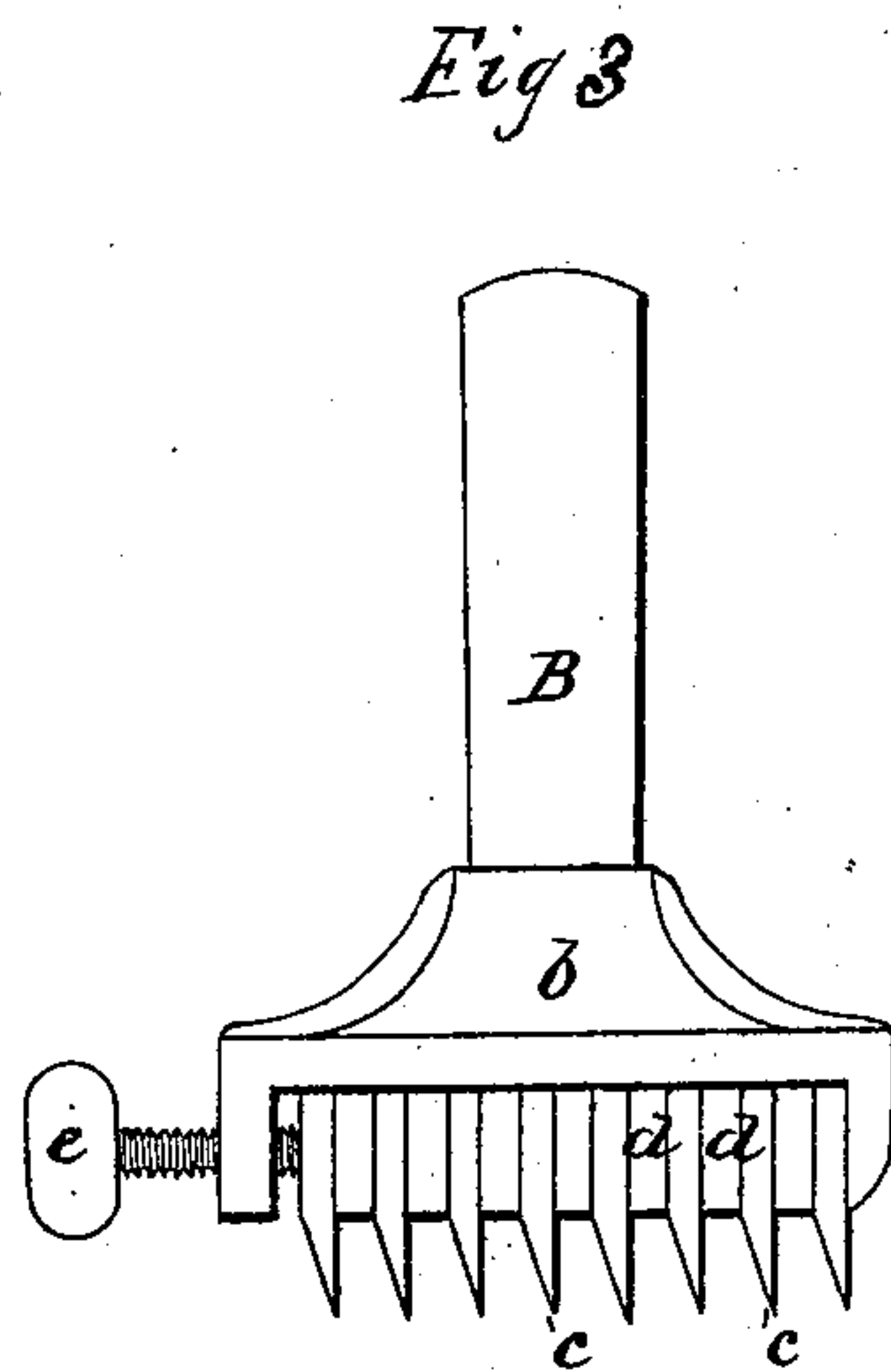
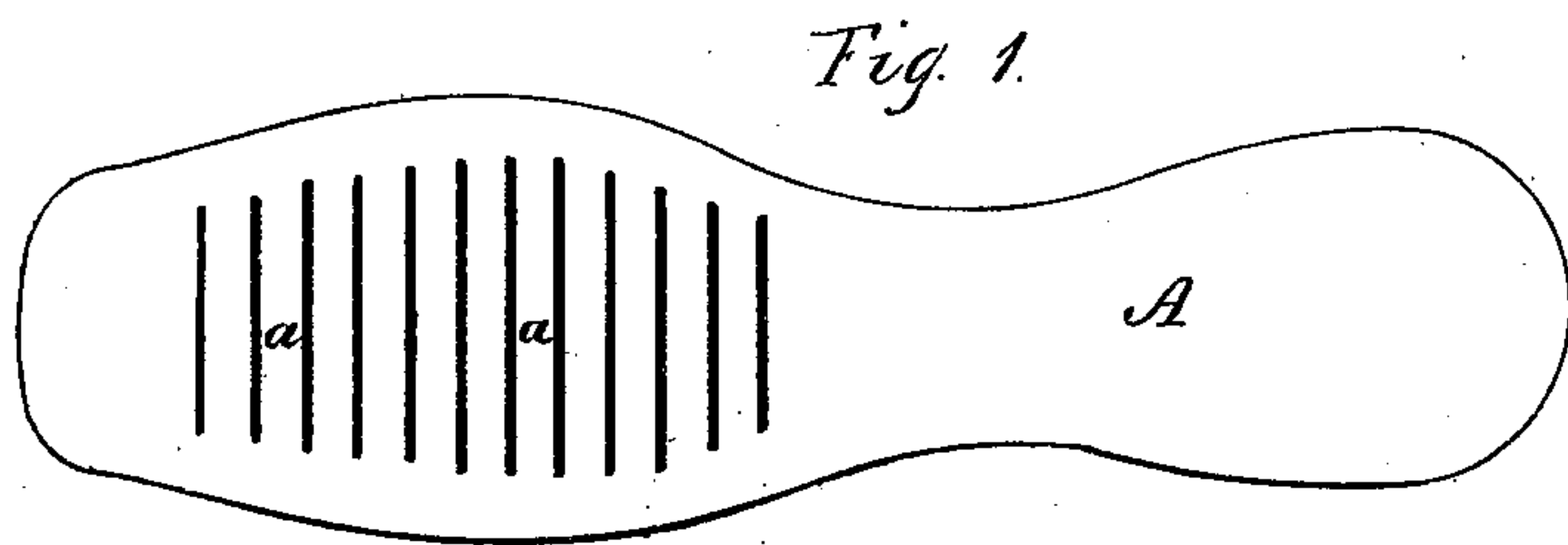


Fig. 2.



WITNESSES:
A. B. Robertson
John A. Kemou

INVENTOR:
Chas. F. Hill
BY *[Signature]*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES F. HILL, OF BALTIMORE, MARYLAND, ASSIGNOR TO HIMSELF AND
GEORGE D. HILL, OF SAME PLACE.

IMPROVEMENT IN INSOLES FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. **167,762**, dated September 14, 1875; application filed
May 17, 1875.

To all whom it may concern:

Be it known that I, CHARLES F. HILL, of Baltimore city, State of Maryland, have invented a new and Improved Insole for Boots and Shoes; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a plan view of the sole, having transverse slits; Fig. 2, a section of a modification of Fig. 1, showing diagonal slits; Fig. 3, a side elevation of the die for cutting the slits in the sole.

The object of this invention is to increase the flexibility of the soles of boots and shoes; and it consists in cutting in the insole or lasting-sole, or both, slits transversely to the same at the bend of the sole.

In the drawing, A represents an insole having the transverse slits *a* at the bend of the foot. Said slits are cut by dies parallel with each other, and extend from the toe to the shank. In cutting the said slits, moreover, I may cut them at right angles to the plane of the sole and straight through, or may cut them diagonally to the same, as illustrated in Fig. 2. B is the die which cuts the said slits; and it consists in a head, *b*, provided with a suitable handle, and having alternating knives *c* and plates *d*, which are tightly clamped in said head by a binding-screw, *e*, the said blades being varied in length and arranged in order corresponding to the outline of the ball of a

sole, so that the longest blade shall be in or near the center, and the shortest at the respective extremes of the series. It is obvious that these knives may be held by other means than the die described.

In applying my invention, either the lasting-sole or the insole, or both, may be constructed according to the principle of the same, and by means of the said improvement the sole of the boot or shoe is rendered more flexible and easy to the foot, and much of the disagreeable creaking noise prevented.

I am aware of the fact that it is not new to construct an insole with perforations, which communicate with a subjacent air-chamber for ventilating purposes, and I therefore disclaim this idea, and confine myself to my slitted insole.

Having thus described my invention, what I claim as new, is—

1. As a new article of manufacture, an insole having transverse slits to increase its flexibility, substantially as described.

2. The knife-blades *c c*, arranged in an order corresponding to the outline of the ball of a sole, so that the longest blades shall be in the center, and the shortest at the respective extremes of the series, substantially as and for the purpose specified.

CHARLES F. HILL.

Witnesses:

G. E. SANGSTER,
WM. D. ELDRIDGE.