

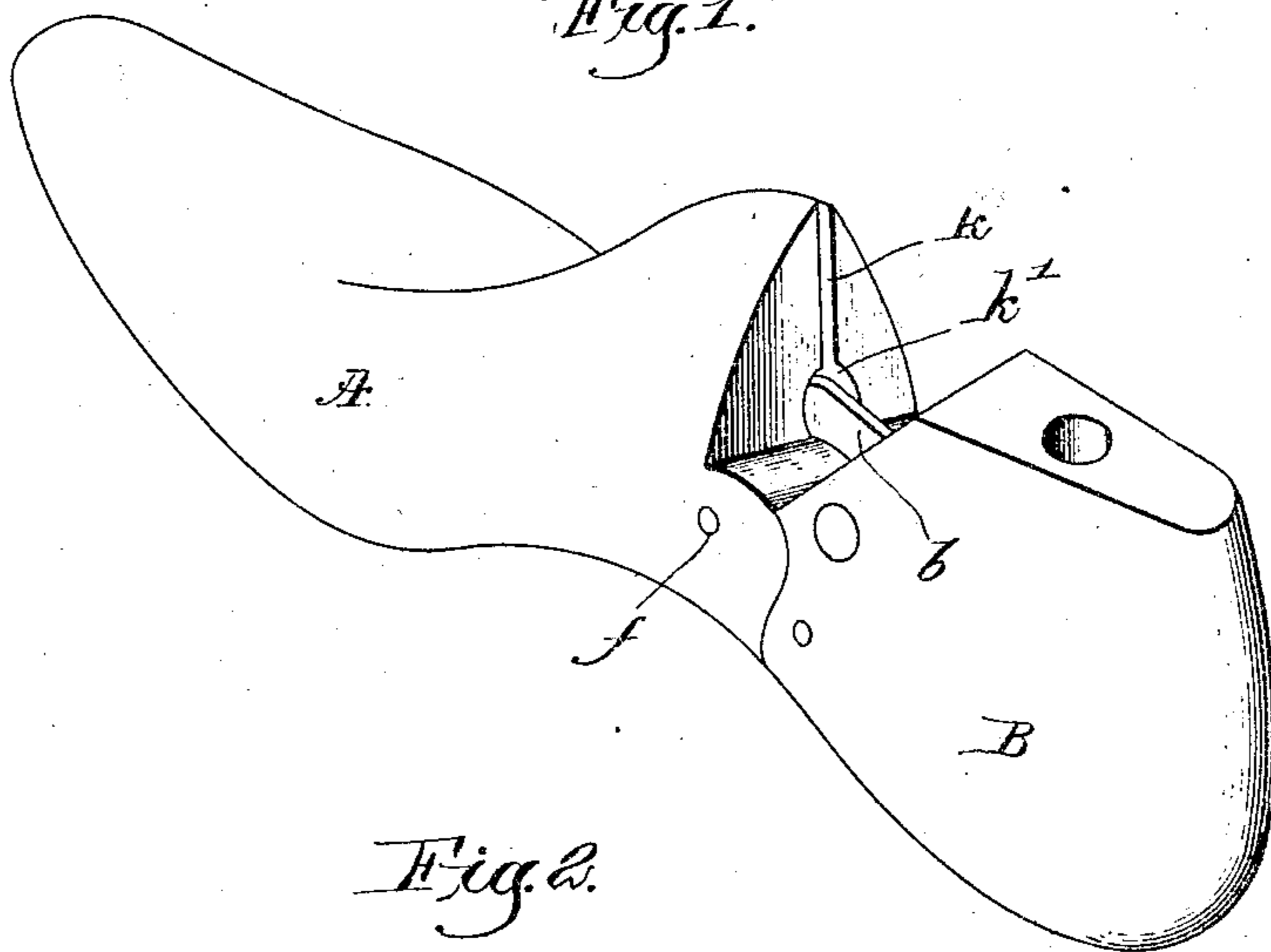
No. 842,319.

PATENTED JAN. 29, 1907.

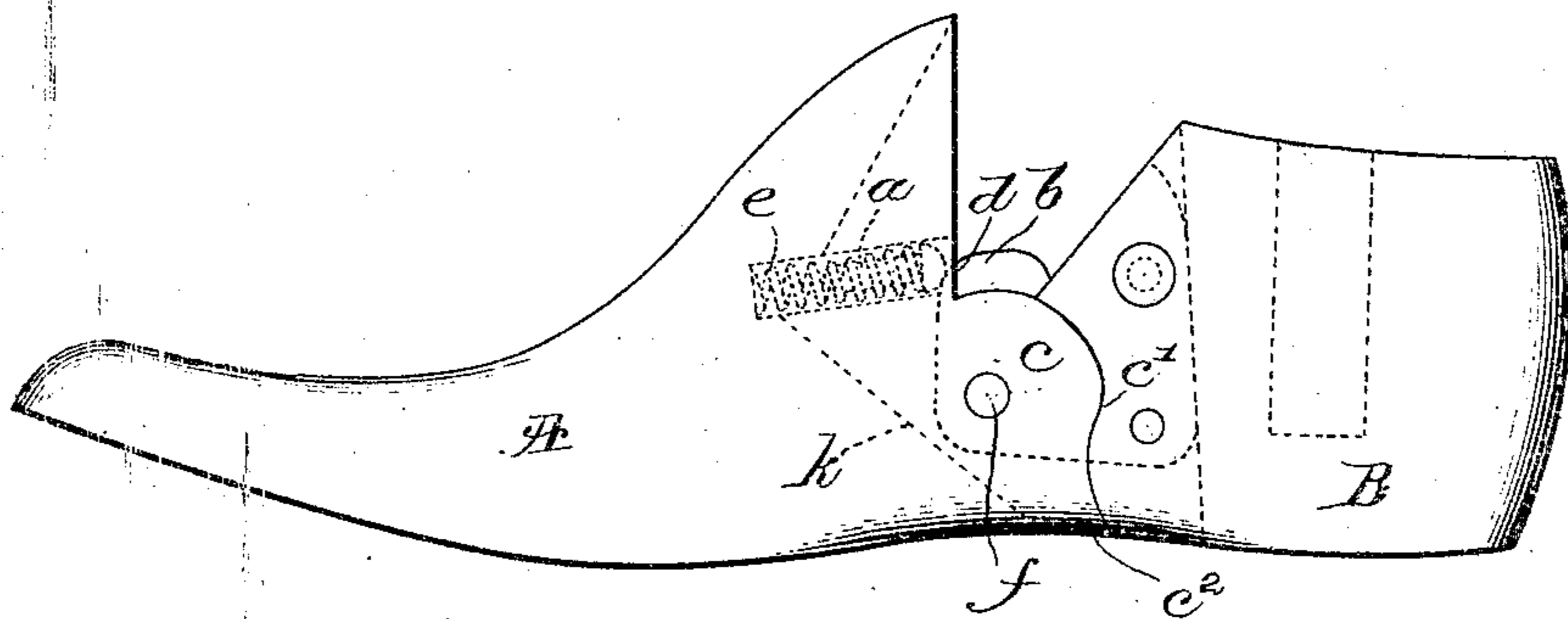
G. A. KRENTLER.  
LAST.

APPLICATION FILED AUG. 21, 1903.

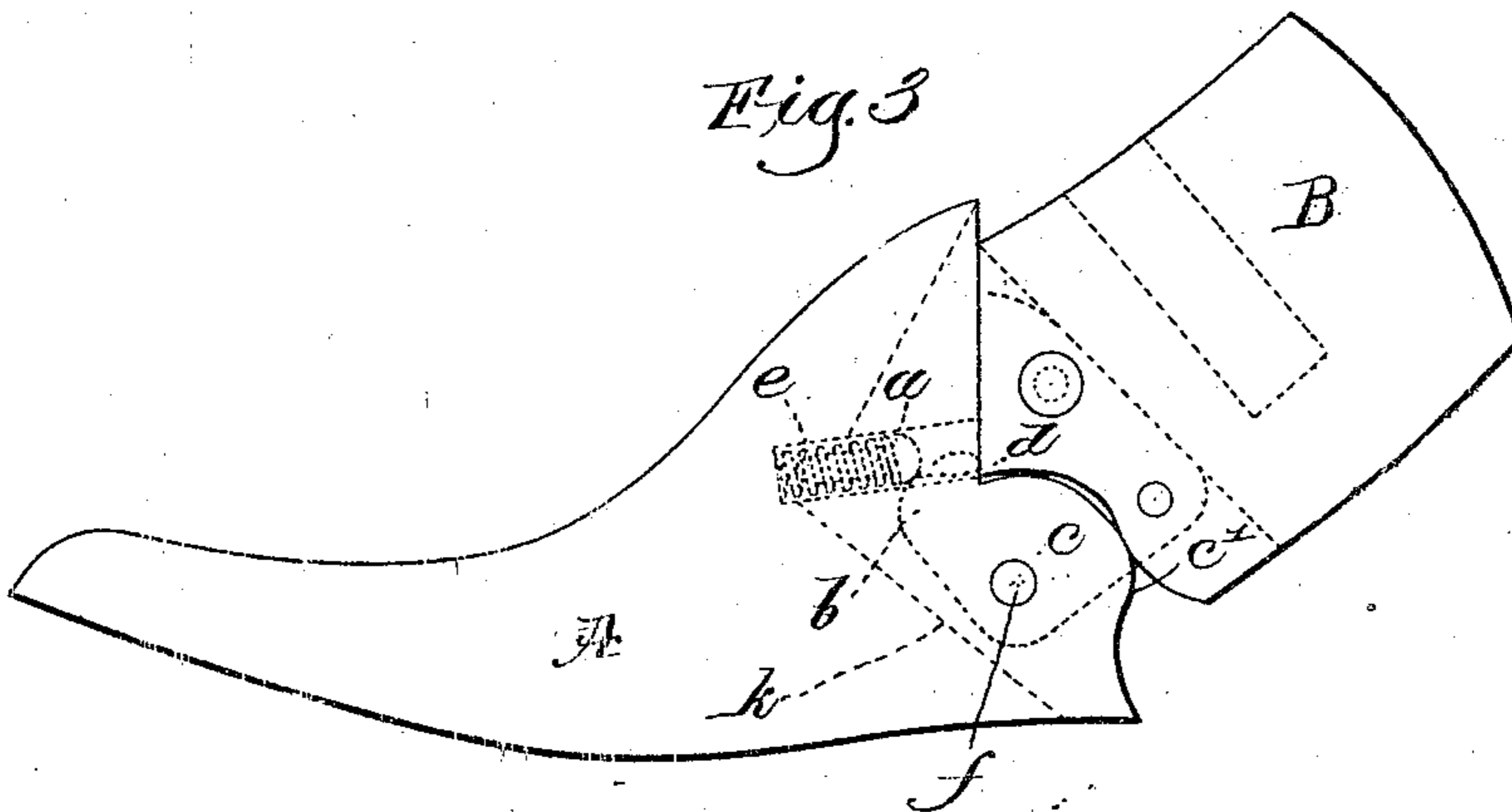
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Witnesses.*

*Thomas J. Drummond*  
*Warren D. Owens*

*Inventor.*

*George A. Krentler,*  
*by Mesby & Gregory Attys.*

# UNITED STATES PATENT OFFICE.

GEORGE A. KRENTLER, OF DETROIT, MICHIGAN, ASSIGNOR TO KRENTLER-ARNOLD HINGE LAST COMPANY, OF DETROIT, MICHIGAN, A CORPORATION OF WEST VIRGINIA.

LAST.

No. 842,319.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed August 21, 1903. Serial No. 170,269.

*To all whom it may concern:*

Be it known that I, GEORGE A. KRENTLER, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented an Improvement in Lasts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

My invention relates to hinged or divided lasts, and more particularly to the provision for locking or holding the last against movement into broken position.

The constructional details and operation of my invention will be pointed out in the course of the following description, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a last containing my invention. Figs. 2 and 3 show the same in side elevation, the former in lengthened position and the latter in shortened or collapsed position.

My invention is herein shown as applied to a hinged last of the general character shown in the patent to Pym, No. 608,006, July 26, 1898, in which the fore part or section A is joined to the heel part or section B by a plate-hinge *b* in a kerf *k* and has a rearward extension or knuckle *c* fitting against the front face of the heel part.

A last in use has a strong tendency to move into an intermediate or broken position instead of occupying the proper positions shown in Figs. 2 and 3, and my invention relates to means for preventing this movement. Said means consists in providing an angular projection or wedging-surface *c'* on one part of the last, herein shown as on the rear end or secant face of the fore part, and a dwell or cooperating surface on the other part, herein shown as on the front end or secant face of the heel part, so that when said two cooperating surfaces slide on each other in moving toward said intermediate position they will offer increasing resistance and will tend to hold the last parts rigidly in lengthened or shortened position.

As herein shown, the wedging-surface or protuberance *c'* is secured by providing a bulge or enlargement on the knuckle *c*, slightly eccentric to the pivot-pin *f*, on which

the heel part turns, said heel part being sawed to fit said wedging-surface *c'*. Below the latter I extend the knuckle, as indicated at *c''*, to constitute a stop for limiting the downward movement of the heel part with relation to the fore part.

The principle upon which the locking device operates is the crowding or wedging of one part past another part when the heel part is turned on its pivot, and I intend to claim the same herein broadly.

In my copending application, Serial No. 42,839, filed January 11, 1901, now Patent No. 764,894, I have shown and claimed another species, consisting of a pin *a* and spring *e*, held in a hole *k'* and cooperating with the projecting corner *d* of the plate-hinge *b*.

The operation in both cases is substantially the same, the necessary yielding movement being secured in the species herein claimed by reason of the inherent elasticity of the wood and connections, so that the heel part B is permitted to swing upon application of proper pressure with relation to the fore part and yet normally offers a strong resistance to movement and holds the parts in a normal position when said wedging-surface *c'* is seated in the dwell or cooperating surface of the heel part.

If the wedging or moving part were made concentric with the pivot-pin *f*, there would be no point of special resistance; but by making it eccentric or providing it with a corner or obtuse angularity it cooperates with the opposing resisting-surface to lock the last in operative position.

The most important function of the locking device is to maintain the last in lengthened or working position, and while it is not necessary that the same amount of force be required to straighten the last that is required to collapse it I prefer to form the parts so that it requires considerable force to bend the last in either direction, the last having a natural position of rest or tendency to remain in its two extreme positions, or collapsed and lengthened positions.

In the present case I limit my claims to the species of contacting last-faces having cooperating angular surfaces for securing the desired locking effects, as the invention is broadly (*i. e.*, generically) claimed in my application, Serial No. 42,839, filed January

11, 1901, (now Patent No. 764,894,) where I have shown another species or a different means for effecting the desired results.

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

1. A divided last, and a union movably connecting the parts of the last, one of said last parts having a rigid angular or wedging surface, and the other of said last parts having a cooperating rigid resisting-surface, and constructed to maintain the parts at rest when the last is collapsed and to offer increasing resistance in moving away from collapsed position.

2. A divided last, having adjacent contacting secant faces, and a union movably connecting the parts, a portion of one of said faces consisting of an angular or wedging surface, and a portion of the other of said faces consisting of a cooperating resisting-surface,

said surfaces having a position of rest for automatically holding the last lengthened and being constructed to offer increasing resistance to moving away from lengthened position.

3. In a divided last, and in combination, a fore-part section having a rearward extension, a heel-section, a plate connecting said sections, and a protuberance on the fore-part extension arranged to engage the face of the heel-section and resist movement of said heel-section past a point intermediate its extreme positions.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. A. KRENTLER.

Witnesses:

CORA E. LAKE,

LOUISE KEMBLE.