

(No Model.)

E. KRATZ.

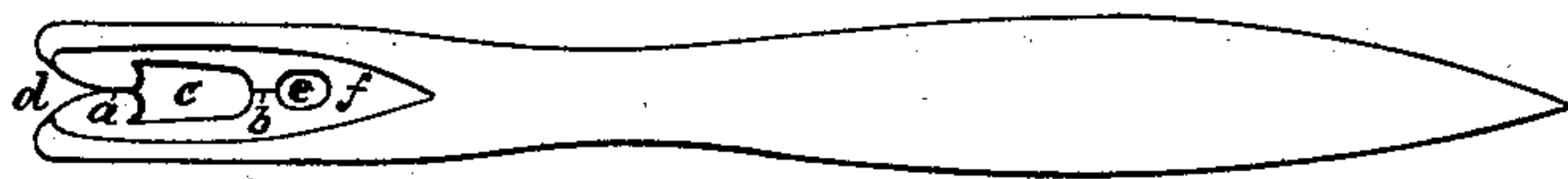
NEEDLE.

No. 324,030.

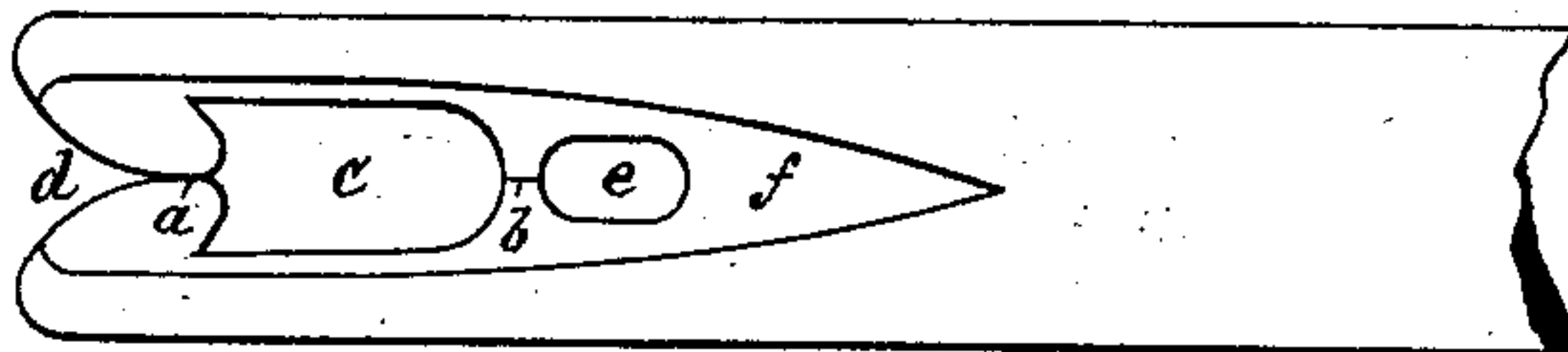
Patented Aug. 11, 1885.



*Fig. 3.*



*Fig. 2.*



*Fig. 1.*

WITNESS:

*John F. Allen*  
*Charles L. Green*

INVENTOR

*Ernst Kratz*  
BY

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# UNITED STATES PATENT OFFICE.

ERNST KRATZ, OF MARBURG, GERMANY.

## NEEDLE.

SPECIFICATION forming part of Letters Patent No. 324,030, dated August 11, 1885.

Application filed November 8, 1884. (No model.) Patented in Germany May 11, 1883, No. 25,424; in England March 20, 1884, No. 5,221; in Belgium March 31, 1884, No. 64,583, and in France June 27, 1884, No. 161,089.

*To all whom it may concern:*

Be it known that I, ERNST KRATZ, a subject of the Emperor of Germany, and a resident of Marburg, in the Empire of Germany, have invented certain new and useful Improvements in Sewing-Needles, (for which I have obtained a patent in Germany, No. 25,424, bearing date May 11, 1883; in Belgium, No. 64,583, bearing date March 31, 1884; in England, a provisional protection bearing date March 20, 1884; in France, a patent, No. 161,089, bearing date June 27, 1884,) of which the following is a specification.

My invention relates to improvements in sewing-needles, to the eye of which is led from the outside of the needle a slot for introducing the thread laterally with any part of its length, and has for its object to facilitate the opening of this introducing-slot.

Figures 1 and 2 of the accompanying drawings show the rear or heel end of the needle to which my invention is applied, and Fig. 3 a side elevation thereof.

In all needles a split, *b*, is departing from the needle-eye *c*, which split is opposite or nearly opposite to the introducing-slot *a*, and forms the essential feature of my invention, for it facilitates in a high degree the opening of the slot *a* when the thread is pressed through the latter into the needle-eye. The needle shown in Fig. 1 represents hand sewing-needles, and Fig. 2 shows a needle for surgical purposes.

For facilitating the introduction of the

strained thread into the slot *a*, a notch, *d*, may be arranged at the outer end of slot *a*, which latter may be either central or lateral with regard to the needle-eye *c*. In all cases the ends of the needle-eye *c* are so shaped that under sewing neither the introducing-slot *a* nor the opening-split *b* can be opened by the tension of the thread.

As it offers great difficulties to produce the split *b* by the usual means which are employed for making slot *a*, I produce the split *b* in the manner shown.

Under the needle-eye *c* is bored a hole, *e*, being separated from *c* only by a narrow bridge, and, moreover, are both sides of the needle over the eye *c* and the hole *e* hollowed longitudinally, as shown at *f*, so that the narrow bridge resting between *c* and *e* becomes very thin in its midst, and the split *b* may therefore be very easily cut at this point.

I claim as my invention—

As an article of manufacture, the sewing-needle herein described, the same consisting of a needle having the slotted head *a*, eye *c*, hole *e* below the same, and connected with the said eye by a slit, *b*, as set forth.

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

ERNST KRATZ.

Witnesses:

J. GRUND,  
A. S. HOGUE.