

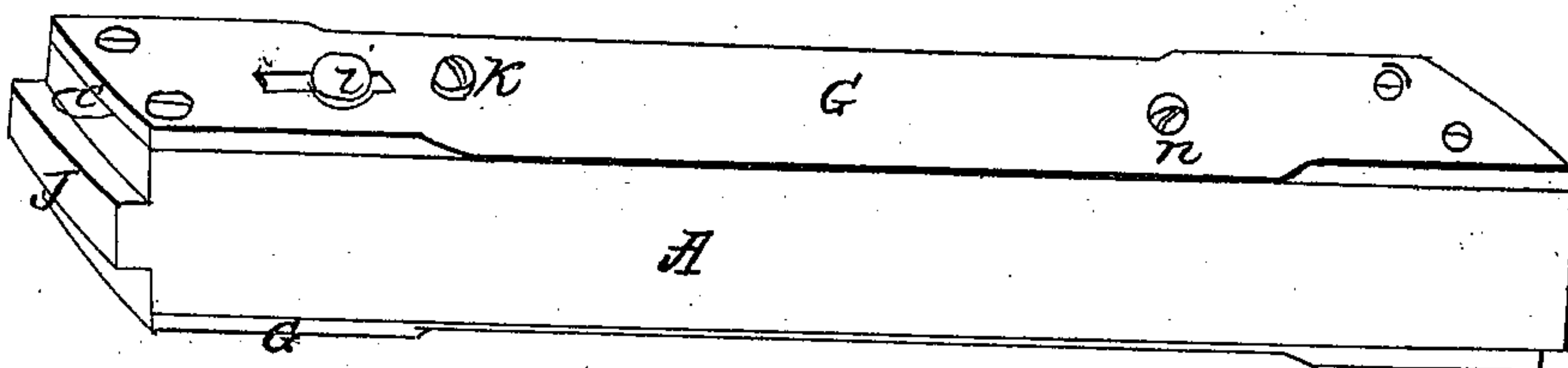
*E. D. Gould,*

*Harness Tool.*

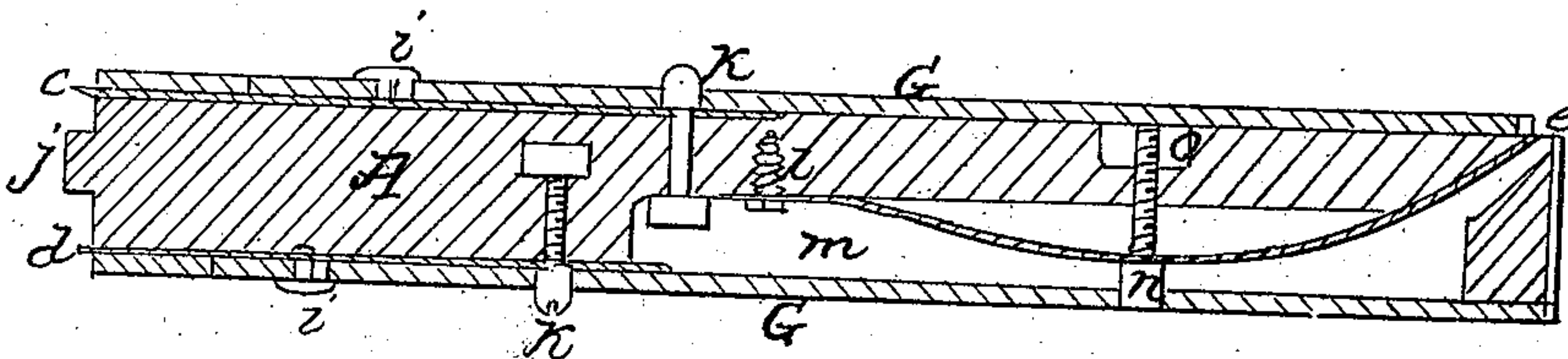
*N<sup>o</sup> 34421.*

*Patented Feb. 18, 1862.*

*Fig 1.*



*Fig 2.*



*Witnesses;*  
*D. C. Pherson.*  
*Wm. Emerson*

*Inventor;*  
*E. D. Gould,*  
*By J. Fraser, atty.*

# UNITED STATES PATENT OFFICE.

ELANSON D. GOULD, OF LOCKPORT, NEW YORK.

## IMPROVEMENT IN CHANNELING-TOOLS FOR HARNESS-MAKERS.

Specification forming part of Letters Patent No. 34,421, dated February 18, 1862.

*To all whom it may concern:*

Be it known that I, ELANSON D. GOULD, of Lockport, in the county of Niagara and State of New York, have invented a new and Improved Tool for Channeling Leather by Harness-Makers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view of my improved tool. Fig. 2 is a longitudinal section thereof.

Like letters designate corresponding parts in both of the figures.

My invention is designed to furnish a convenient instrument for cutting grooves or channels in harness-work where it is intended to have the stitches concealed by lying below the surface and to execute the same with greater rapidity and precision than can be done with a knife guided by the hand alone, gaging both the depth of the channel and its distance from the edge of the leather.

As represented in the drawings, A is a piece of hard wood of suitable size and length to be conveniently held by the hand. Two opposite sides are covered with brass or other metallic plates G G, underneath which lie the knives *c*, *d*, and *e*. Those for straight channeling *c* and *d*, are thin lancets lying in a groove in the wood A, in the shank of each of which is inserted a pin *h h*, which passes through a longitudinal slot in the plates G, with a broad head *i* outside, by moving which with the thumb or finger the knife is made to slide out of its socket more or less, as required. A set-screw *k* passes through a slot in the shank of each knife and enters a nut, which is inserted in the wood of the stock. By turning in this screw its head presses the knife against the stock firmly, so that it will not be pushed back when in use. By this means either lancet may be made to slide from its sheath or socket far enough to cut the depth of channel required, and when not in use may be drawn back so as to prevent it from inflicting or receiving injury. A part of the stock projects at one end *j* far enough to present a shoulder or guide to the edge of the leather, leaving a greater space between it and the knife *d* than on the other side, so that one is adapted to use on heavy and the

other on lighter work, where the distance of the seam from the edge would have a slight variation. This end of the instrument is designed for use on "traces" and other similar work where the seam is directly at right angles with the surface. In the opposite end the knife *e* is set obliquely to adapt it for channeling for beveled work and for all round work, such as lines, check-reins, crupper-straps, &c. In this the shank is curved to form the segment of a circle, and is secured by the screw *l* to the wood of the stock. The shank is so thin as to act as a spring, and as it is thus held in the recess *m* of the stock its curvature is such as to prevent the point from projecting at *e*; but the adjusting-screw *n*, which passes through into the nut *o*, when screwed in forces the arch of the spring-shank down, so flattening the curve as to drive the point out, and by turning this screw in or out more or less the protrusion of the lancet is regulated to the precise depth to be cut.

This knife is particularly useful in sewing round work, as it buries the seam so that when rubbed down not a stitch is exposed, and thereby produces work of much better finish and possessing greater durability in consequence of the stitches not wearing off by friction as when they lie exposed on the surface of the leather.

The lancets are ground nearly flat on the side next the plates G G, so that the bevel of the other side causes the shoulder to hug the leather and not run out.

This tool saves a great amount of time over the common method of channeling with a knife by hand, as with it the operator can channel the edge of a strap as fast as he can pass his hand along it, the tool gaging both depth and distance from the edge with an accuracy that is unattainable in hand work. Its use therefore enables manufacturers to introduce a better style of workmanship at no increase of labor or expense to themselves, thereby benefiting the public.

A greater or less number of knives and set at different angles may be employed should the kind of work require it without varying the principles of its construction.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A channeling-tool constructed substantially as described, with the sliding knife or



knives *c d*, and adjustable spring-knife *e*, operating substantially in the manner herein set forth.

2. Constructing the knife *e* with a segmental spring-shank, in combination with the adjusting-screw *n*, substantially as and for the purposes set forth.

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

ELANSON D. GOULD.

Witnesses:

J. FRASER,

D. C. JOHNSON.