

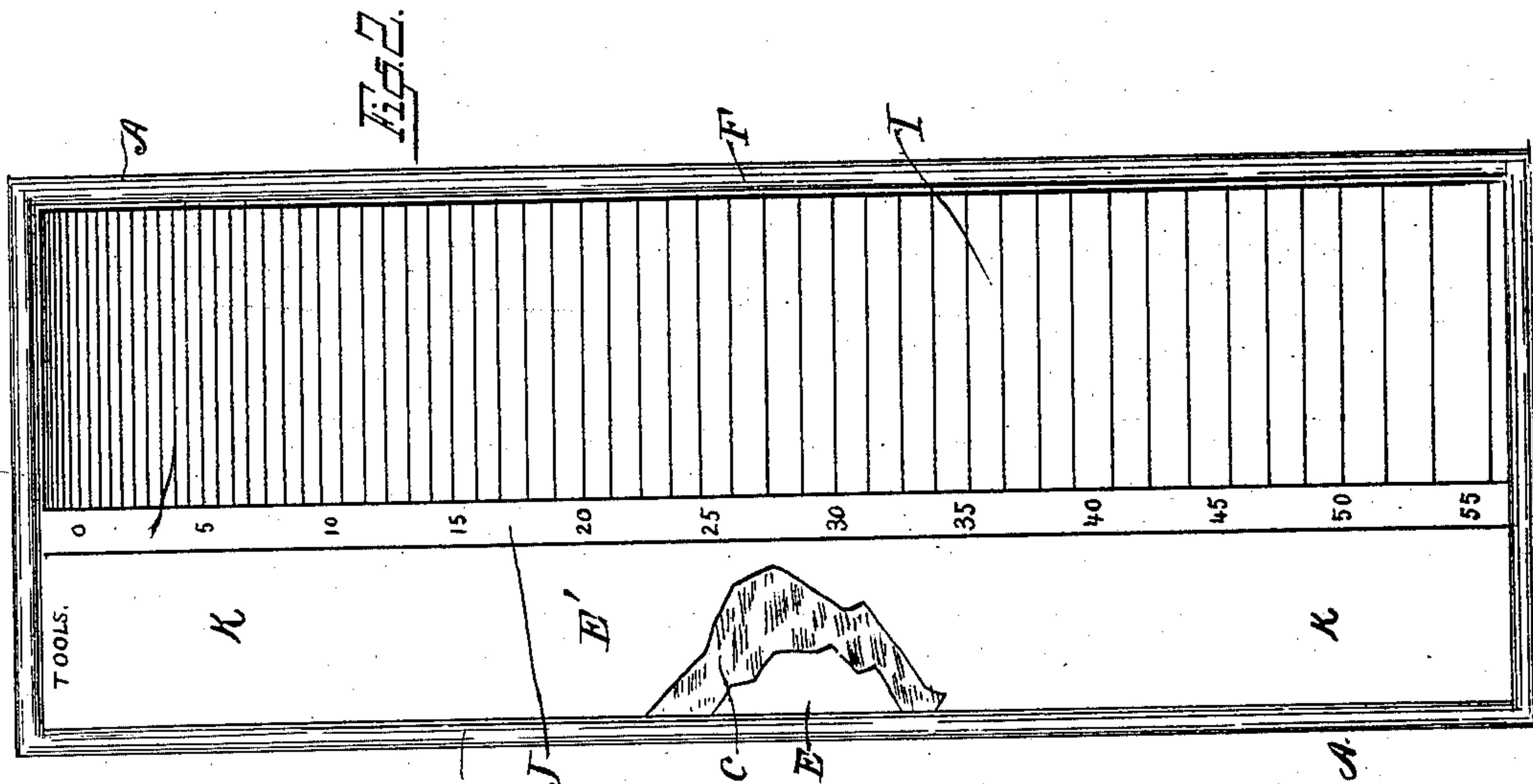
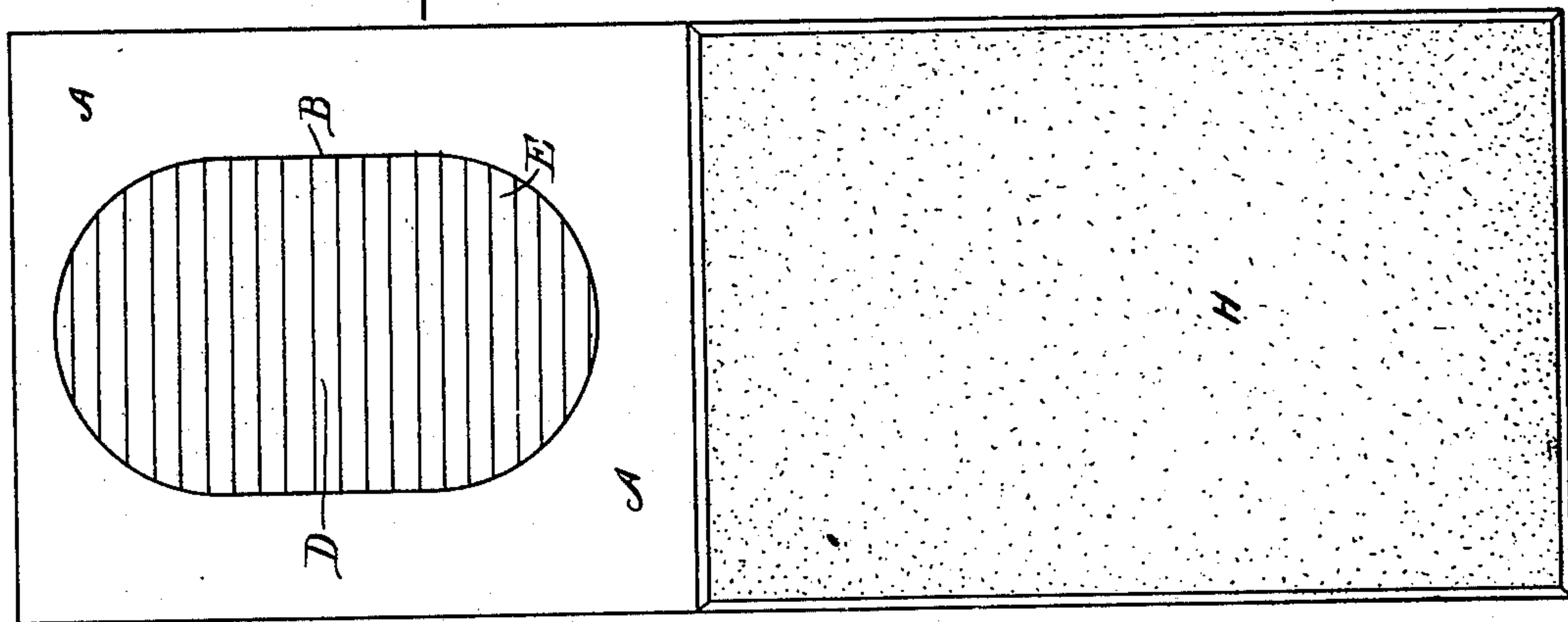
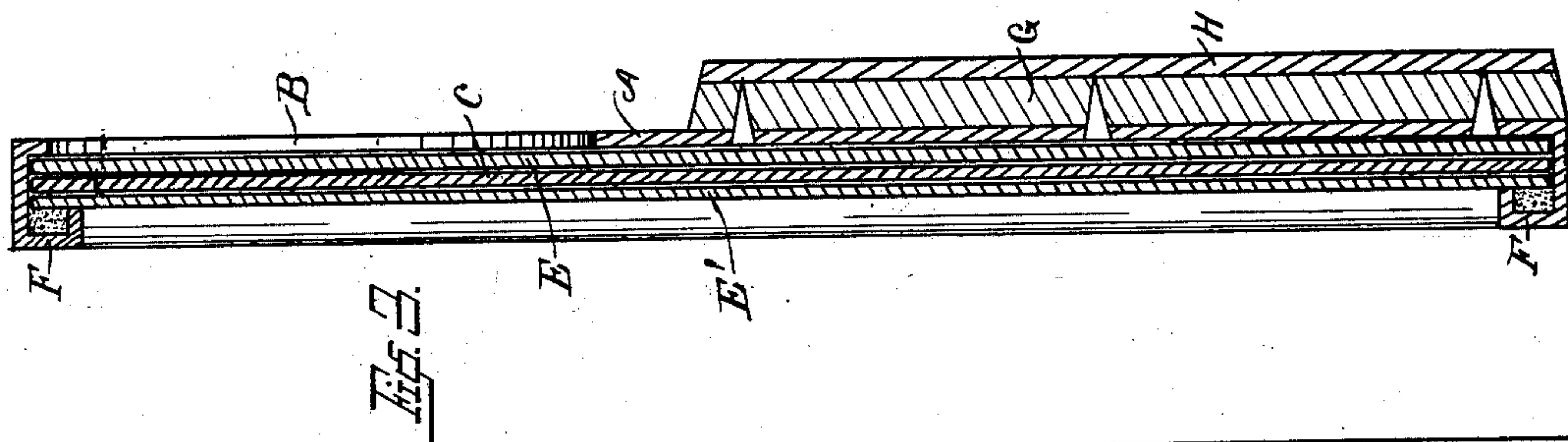
No. 654,796.

Patented July 31, 1900.

A. J. KOEGLER.  
TEMPERING GAGE FOR TOOLS.

(Application filed Oct. 30, 1899.)

(No Model.)



Witnesses.

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# UNITED STATES PATENT OFFICE.

AUGUST J. KOEGLER, OF MILWAUKEE, WISCONSIN.

## TEMPERING-GAGE FOR TOOLS.

SPECIFICATION forming part of Letters Patent No. 654,796, dated July 31, 1900.

Application filed October 30, 1899. Serial No. 735,204. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUST J. KOEGLER, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Tempering-Gages for Tools, of which the following is a specification.

My invention relates to improvements in tempering-gages for tools.

Heretofore metallic gages have been employed; but it is difficult to give to these the exact graduated temper required, and as the metal is easily tarnished it is found to be unsuitable for the purpose. On the other hand, a paper card is too easily soiled and burned, and glass or similar material is too fragile.

The object of my invention, therefore, is to provide a convenient and durable pocket instrument which can be used in the shop or factory without danger of being burned or otherwise destroyed and which is adapted to indicate accurately the required temper of any ordinary tool.

In the following description reference is had to the accompanying drawings, in which—

Figure 1 is a top view of my invention. Fig. 2 is a rear or bottom view, and Fig. 3 is a central longitudinal sectional view of the same.

Like parts are referred to by the same reference-letters throughout the several views.

A is a frame or casing, preferably formed of metal, with an aperture B in the back and an open front or face. A card C, preferably of paper, celluloid, or other material capable of permanently retaining color, is colored on a portion D of its rear surface to indicate the color of the metal of the tool when properly heated preparatory to tempering the same. This colored portion D is adapted, when the card is in the case A, to register with the aperture B in such a manner that the color may be seen through the aperture. This aperture B is covered by a piece of isinglass E, which protects the paper from injury on this side, a second piece of isinglass E' being used to cover the front side of the paper, as shown in Fig. 3. The strips of isinglass and paper are held in place by bending the edges F of the case over upon the surface of the piece E', paint, putty, or any other suitable material being employed, if desired, to render the device water-tight.

As it is necessary to clean the surface of the tool in order to ascertain its color, I have

provided the back of the case A with a block G, which is surfaced with emery H or other erosive substance. With this construction my device may be used both for cleaning the tool and indicating the required temper.

Referring now more especially to the upper surface of the card C, it will be observed that the same is provided on one side with a colored bar I, shaded gradually from one end to the other. In the device as used this bar is shaded from blue to a light straw color, and the degree of color is indicated by the figures in the column J at one side of the bar.

The space K at the left hand of the card C is designed to be filled with the names of the various tools and figures indicating the required temper in the degree of color shown by each of such tools when properly tempered, the degree of color in the bar I being also designated in figures in the intermediate column shown in the drawings.

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

1. A tempering-gage for tools, comprising an inclosing case, open on one side and provided with an aperture on the other; a strip of transparent non-fragile material covering said aperture; a card provided with indicating colors, located in the case and having a colored portion on the rear side, arranged to register with said aperture; and a plate of transparent material covering the upper side of said card, and secured within the case.

2. A tempering-gage for tools, comprising an inclosing case open on one side and provided with an aperture on the other; a strip of transparent non-fragile material covering said aperture; a card provided with indicating colors, located in the case, and having a colored portion on the rear side, arranged to register with said aperture; and a plate of transparent material covering the upper side of said card, and secured within the case; together with a block surfaced with erosive material and secured to the rear side of the case adjacent to the aperture therein.

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

AUGUST J. KOEGLER.

Witnesses:

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JAS. B. ERWIN.