

(No Model.)

I. E. MOODY.

ART OF MAKING HOLLOW METALLIC HANDLES.

No. 412,777.

Patented Oct. 15, 1889.

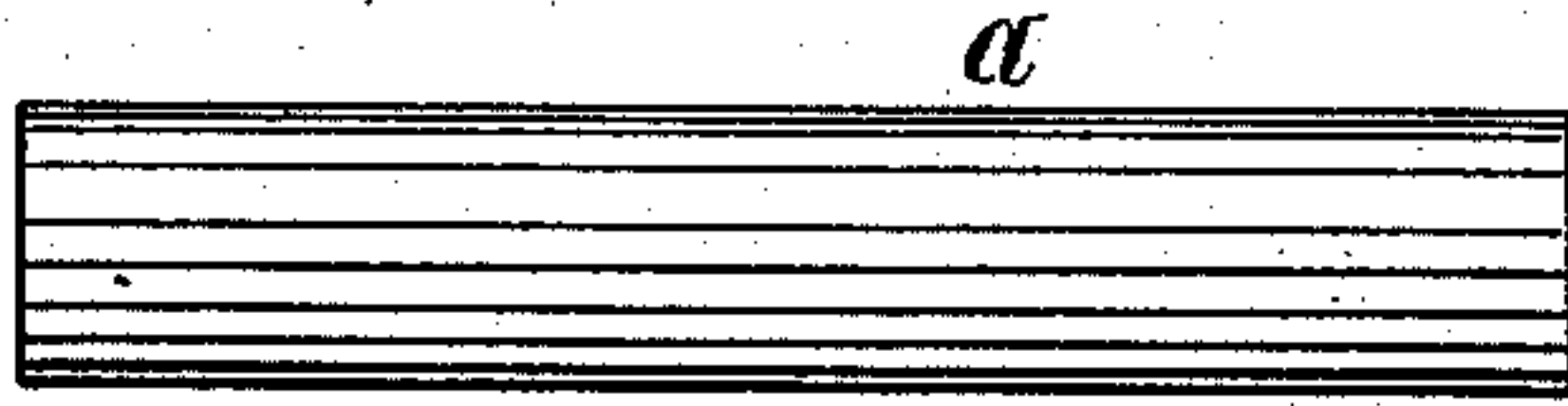


Fig. 1.

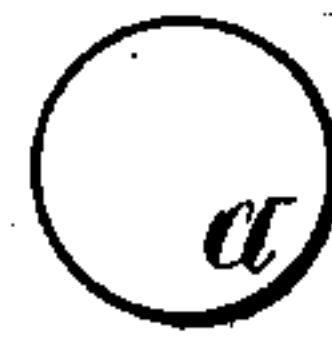


Fig. 2.

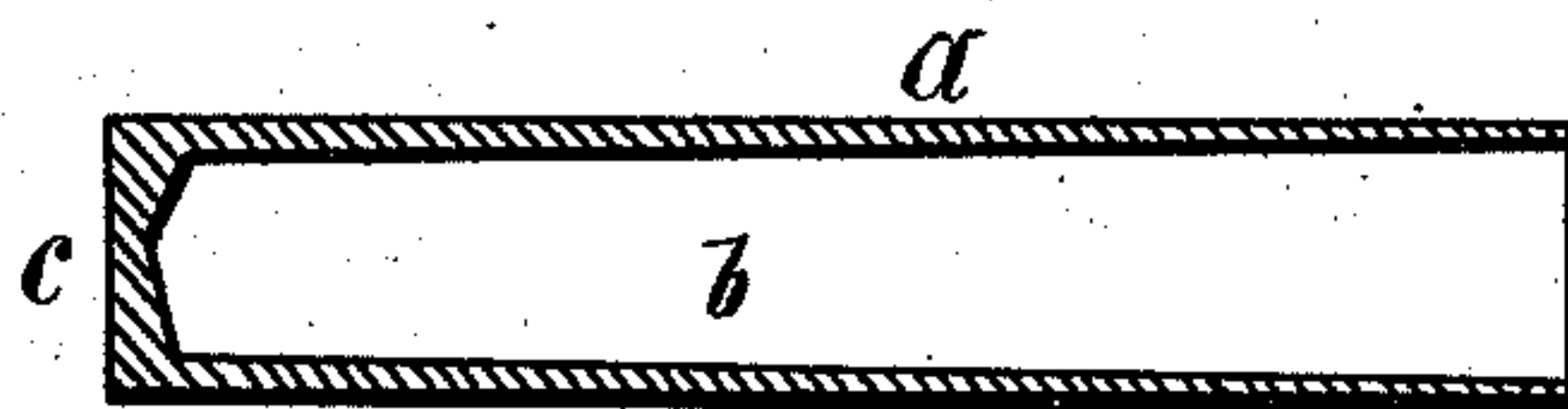


Fig. 3.



Fig. 4.

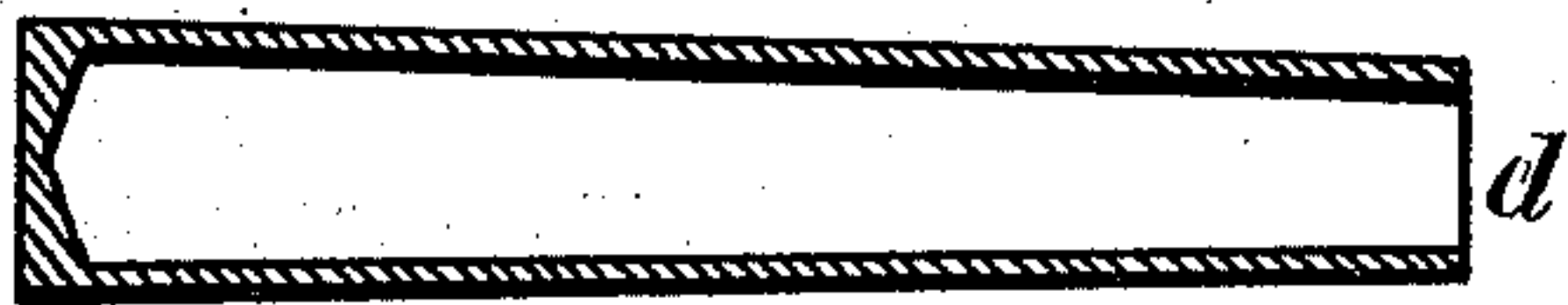


Fig. 5.

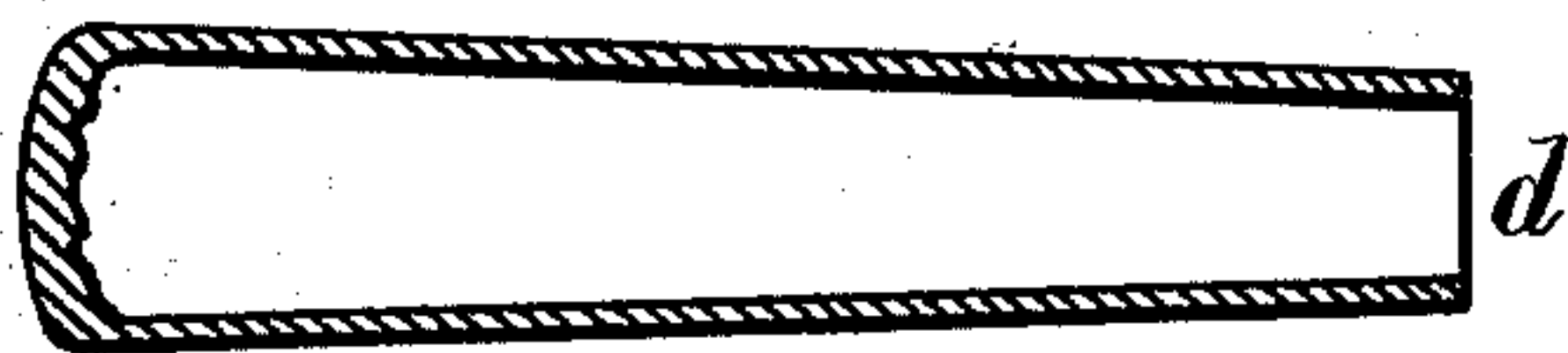


Fig. 6.



Fig. 7.

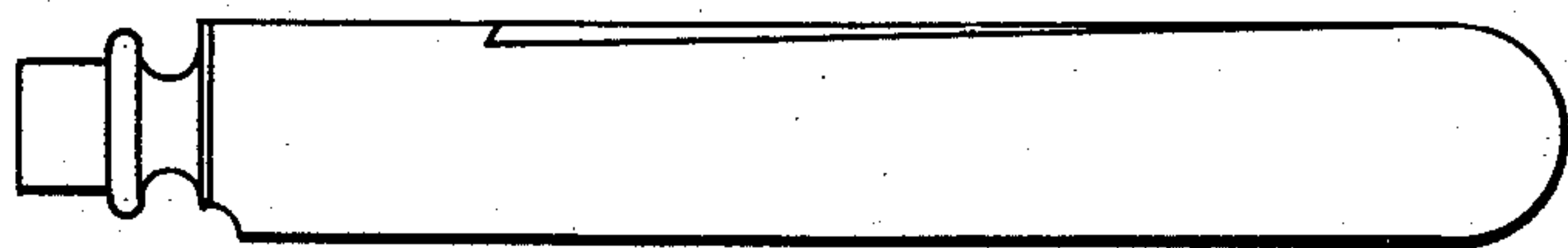


Fig. 8.

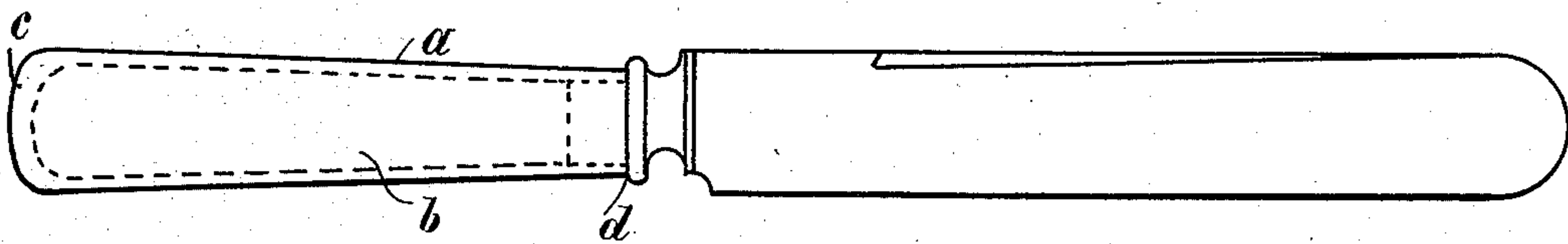


Fig. 9.

Witnesses.

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Inventor.

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UNITED STATES PATENT OFFICE.

ISAAC E. MOODY, OF TOLEDO, OHIO.

ART OF MAKING HOLLOW METALLIC HANDLES.

SPECIFICATION forming part of Letters Patent No. 412,777, dated October 15, 1889.

Application filed July 25, 1889. Serial No. 318,645. (No model.)

To all whom it may concern:

Be it known that I, ISAAC E. MOODY, a citizen of the United States, residing at Toledo, Lucas county, Ohio, have invented certain new and useful Improvements in Hollow Metallic Handles for Table-Knives, of which the following is a specification.

This invention relates more particularly to that class of handles which are formed by boring axially a cylindrical bar of metal from one end nearly to the other, forming a cylindrical tube having a solid closed end, said tube being of nearly the length of the desired handle, this tube being then given the desired shape and taper by means of forging-dies.

Heretofore in the manufacture of handles of this class and handles formed from cylindrical shells of sheet metal, before the step of forming and drawing the tube to a tapering open end, the metal throughout the length of the cylindrical tube has been of uniform thickness, while after such step the metal shell has necessarily become thickest at the open end and quite thin at its closed end. It is found that this feature presents two difficulties—viz., first, the cylindrical tube in drawing and forging is apt to “buckle” or split, or both, and, second, the open end of the handle forming the socket for the tang-plug of the blade, being surrounded by a thick uneven metal, lacks uniformity and is exceedingly difficult to fit.

The object of my invention is to overcome the objections here pointed out.

In the accompanying drawings, made part hereof, Figure 1 is a blank metallic cylinder nearly the length of the desired handle, preferably of rolled decarbonized steel; Fig. 2, an end view of the same; Fig. 3, the same bored tapering to the inner end of the bar; Fig. 4, an end view of the same; Fig. 5, the bored cylinder after having been pressed or hammered to taper toward its open end; Fig. 6, the same after flattening by drop-forging into oval cross-section; Fig. 7, an end view of the same; Fig. 8, a blade with tang-plug, and Fig. 9 handle and blade united.

From the drawings and their above description, to one skilled in the art my method of making knife-handles is obvious.

A metallic cylinder *a*, of suitable length, is drilled out and formed into a tube having a tapering interior *b* in the form of an elongated cone truncated and a solid end *c*. This tube is now heated and pressed or hammered in suitable dies and drawn so as to taper toward open end *d* of the tube, as shown in Fig. 5. During this operation, as the diameter of the tube is lessened toward its open end, the thickness of the shell is of course increased, so that a shell of unequal thickness throughout the length of the cylindrical tube is, by means of the new distribution of metal, converted into a shell of equal thickness throughout the length of the tapering tube. The next step is to press or forge the article under suitable dies, so as to flatten it into oval cross-section and give it the form of the finished handle, as in Fig. 6, and then to remove the “flash” and attach the blade by the usual well-known means.

Some of the advantages of my invention are—

First. The welding of a plug in the opening of the tube to prevent the breaking down and “buckling” of the metal under the hammer is dispensed with.

Second. The handle may be given any desired taper toward its blade end, and its open end, forming the socket, may be left round, oval, or angular.

Third. The shell of the finished handle is of uniform thickness throughout its length.

Fourth. The handle is cheap, light, seamless, and will not leak.

Fifth. The sockets formed by the open end of the handle are uniform, having thick walls, and are easily fitted with the tang-plug on the knife-blade.

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

An improvement in the art of making hollow metallic handles, which consists in boring a cylindrical bore of metal of suitable length from one end nearly to the other, thus forming a tube having a solid closed end, said bore tapering from its outer to its inner end, then pressing or hammering said tube, so that the same shall taper toward its open end; whereby the shell of the completed handle is formed of equal thickness throughout its length, substantially as described, for the purposes specified.

ISAAC E. MOODY.

Witnesses:

F. N. WILSON,
JOHN R. CALDER.

It is hereby certified that in Letters Patent No. 412,777, granted October 15, 1889, upon the application of Isaac E. Moody, of Toledo, Ohio, for an improvement in the "Art of Making Hollow Metallic Handles," an error appears in the printed specification requiring correction, as follows: In line 95, the word "bore" should read *bar*, and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 5th day of November, A. D. 1889.

[SEAL.]

CYRUS BUSSEY,
Assistant Secretary of the Interior.

Countersigned:

C. E. MITCHELL,
Commissioner of Patents.