

(No Model.)

2 Sheets—Sheet 1.

H. C. HART.

MANUFACTURE OF TABLE KNIVES.

No. 360,879.

Patented Apr. 12, 1887.

Fig. 1

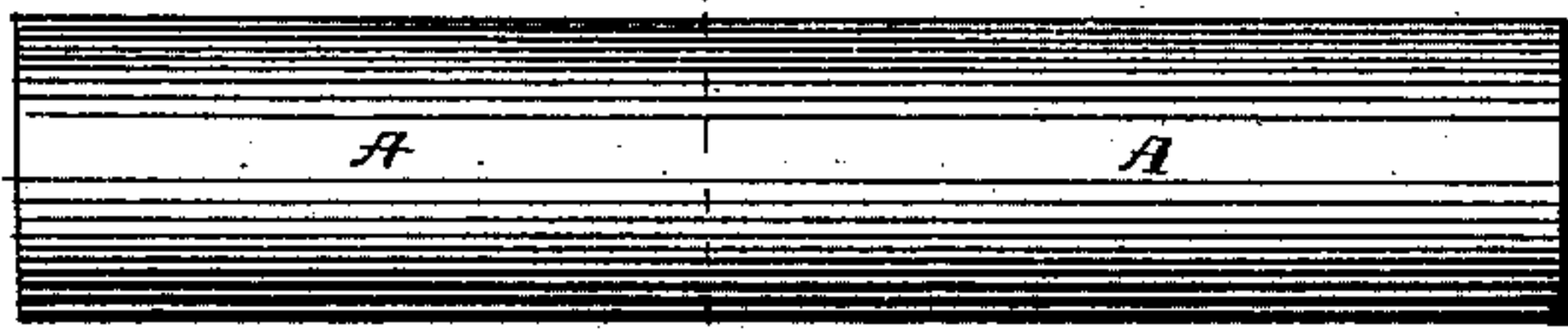


Fig. 2

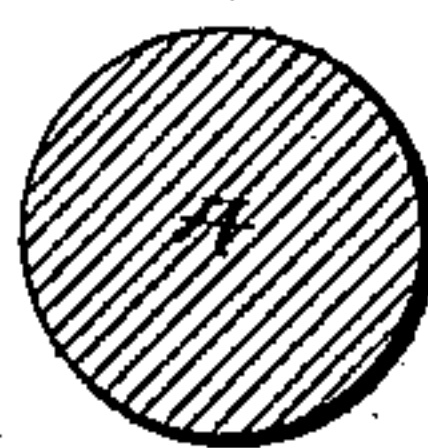


Fig. 3

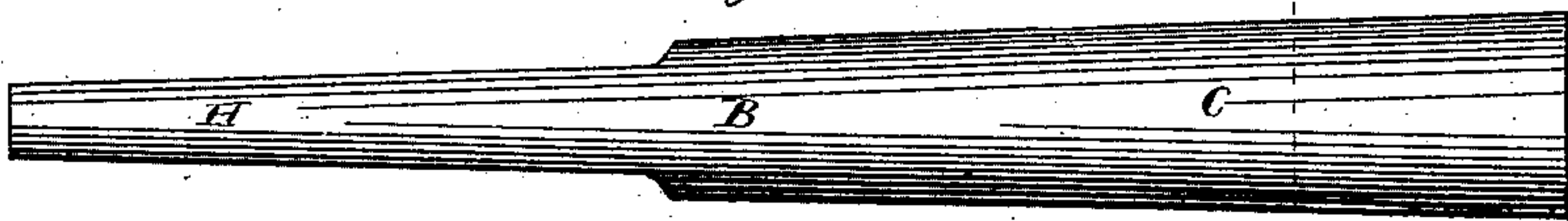


Fig. 4

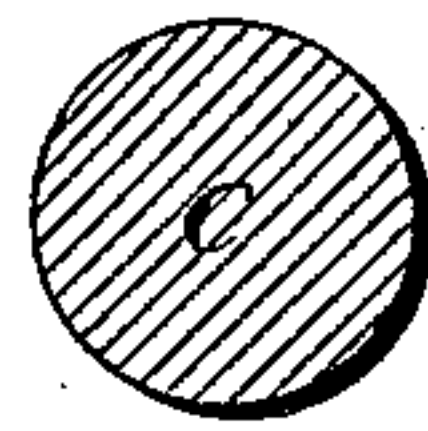


Fig. 5

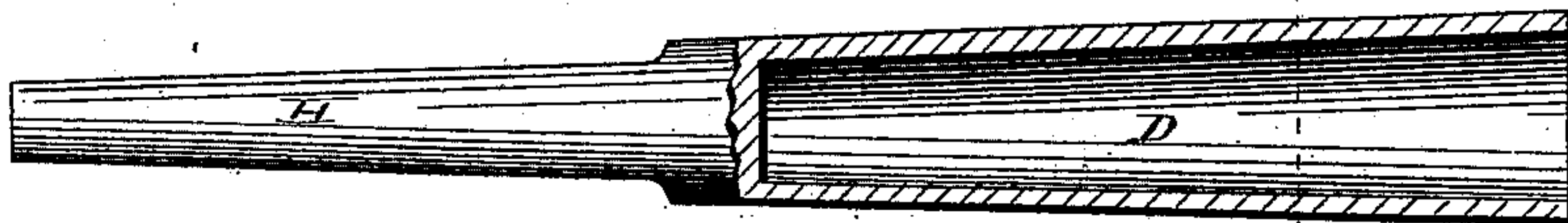


Fig. 6

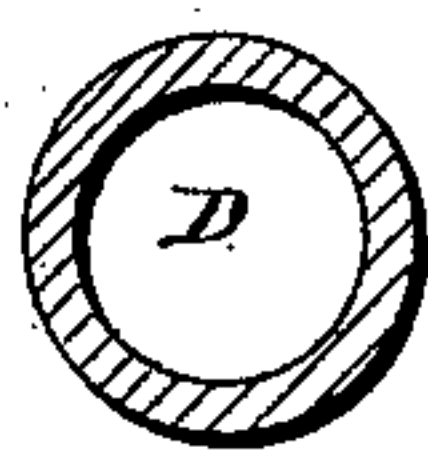


Fig. 7

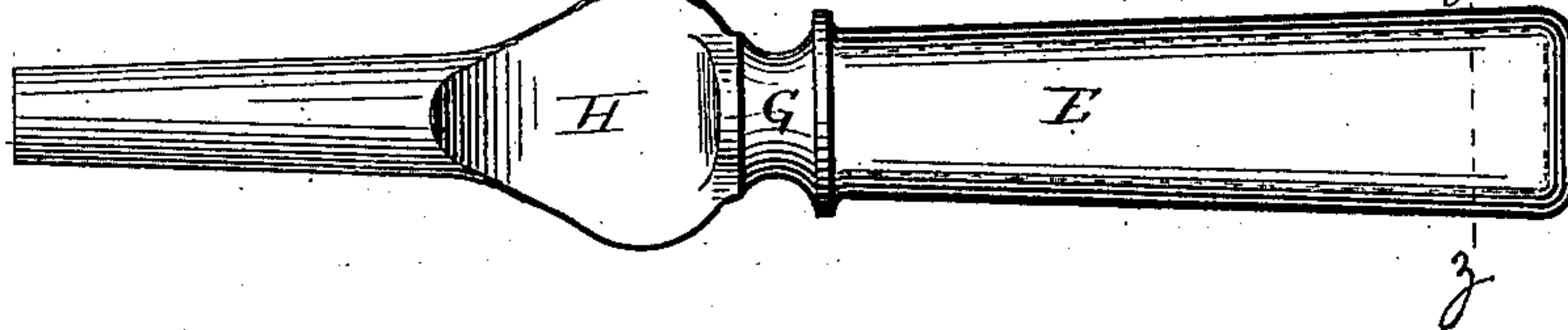


Fig. 8



Fig. 10

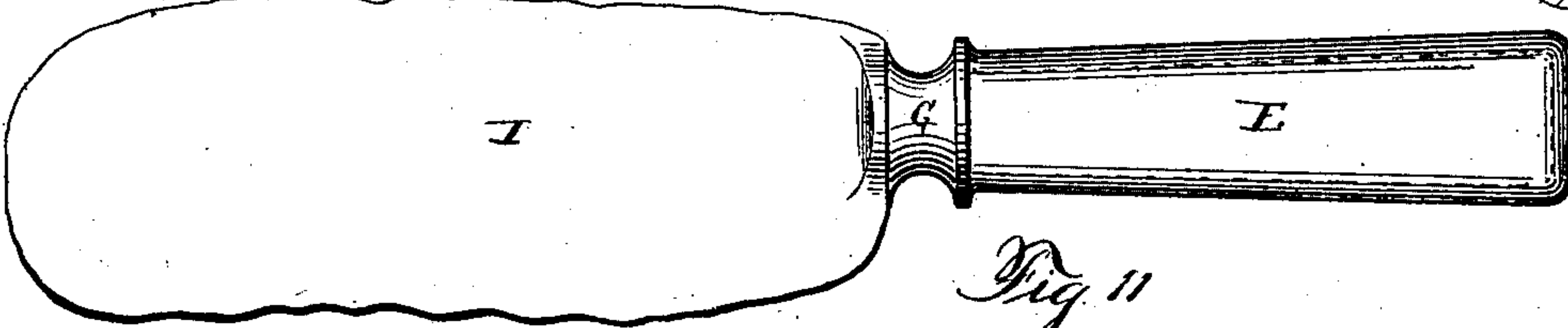
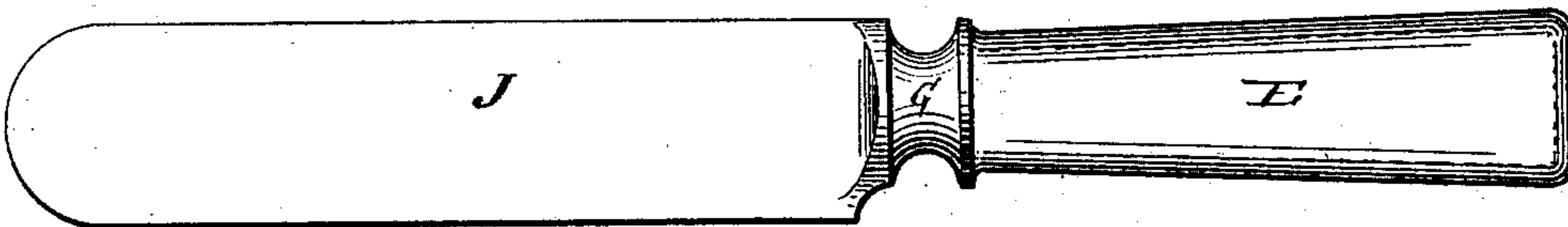


Fig. 11



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 12

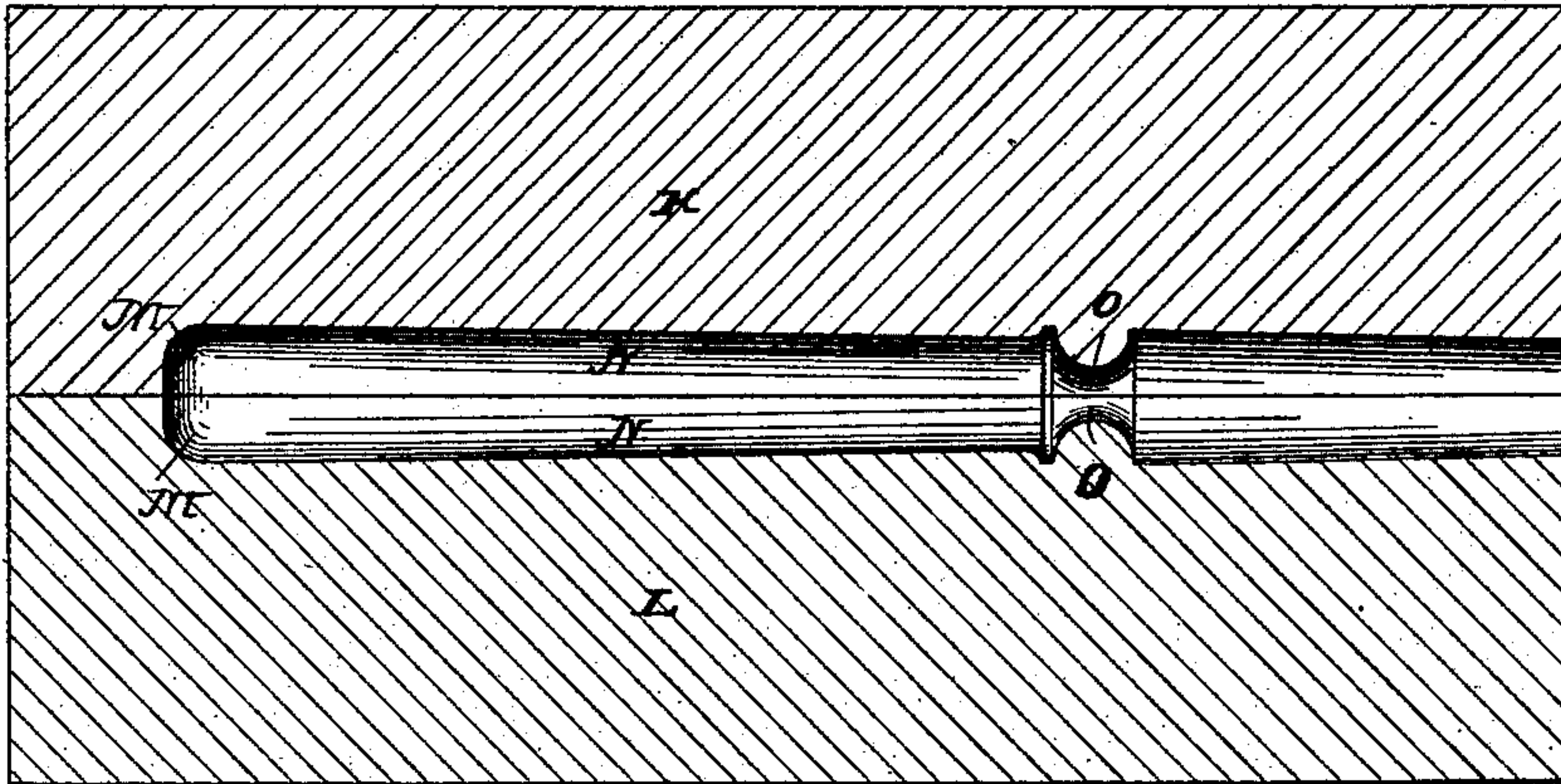
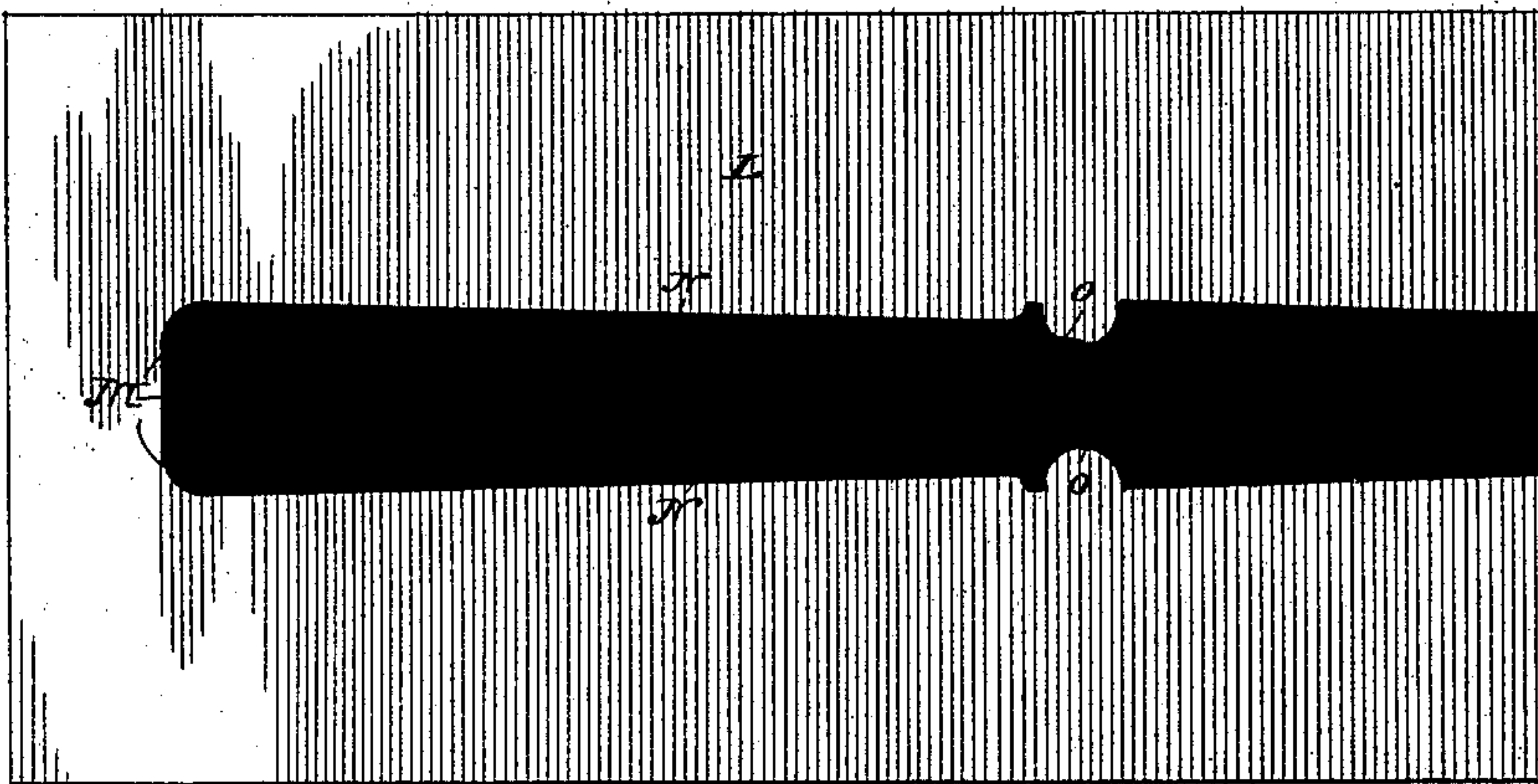


Fig. 13



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MANUFACTURE OF TABLE-KNIVES.

SPECIFICATION forming part of Letters Patent No. 360,879, dated April 12, 1887.

Application filed March 3, 1886. Serial No. 193,829. (No model.)

To all whom it may concern:

Be it known that I, HUBERT C. HART, residing at Unionville, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Knives; and I do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improvement in table-knives, the object being to produce a well-balanced article having desirable lines at a comparatively light expense.

My invention further comprehends a method of making table-knives, consisting in boring out one end of a blank and then closing the mouth of the bore in dies to form the handle of the knife, and flattening and trimming the other end of the blank to form the blade of the knife.

My invention further consists in certain steps in the method, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in side elevation of a section of steel rod suitable for the formation of a knife-blank under my invention. Fig. 2 is a view in transverse section of such rod, on the line *w w* of Fig. 1. Fig. 3 is a view in side elevation of a knife-blank suitable for carrying out my invention. Fig. 4 is a view in transverse section of the larger end of such blank, on the line *x x* of Fig. 3. Fig. 5 is a view, partly in section and partly in elevation, of such blank, showing its larger end bored out. Fig. 6 is a view in transverse section through the bored end of the blank, on the line *y y* of Fig. 5. Fig. 7 is a view in side elevation of the blank after the bored end thereof has been flattened and closed to form the hollow handle of the knife, and also after the neck of the knife has been formed. Fig. 8 is a view in end elevation of the handle of the knife. Fig. 9 is a view in transverse section thereof on the line *x x* of Fig. 7. Fig. 10 is a view in side elevation of the blank after the handle and neck have been formed and after the smaller end of the blank has been flattened, as by rolling. Fig. 11 is a similar view after the said flattened end of the blank has been trimmed, and showing the

completed knife. Fig. 12 is a view in vertical longitudinal section of one form of dies which may be employed for closing the mouth of the bore, flattening the bored end of the blank, and forming the neck of the knife; and Fig. 13 is a face view of one of the dies shown in the preceding figure.

The section A, of round steel rod, contains the required amount of stock for a knife made under my invention. Preferably, such a section of rod is employed in the formation of the shouldered tapering blank B, the larger end of which is bored out to form the cavity C, as shown. After boring out the said end of the blank the bored portion, which is circular in transverse section, is drop-forged in dies adapted to flatten it and form the hollow knife-handle E, which is elliptical in transverse section, to close the mouth of the bore by drawing it together, as at F, and to form the neck G of the knife. The smaller end, H, of the blank is now flattened, as at I, under rollers, or otherwise, and trimmed in dies to form the blade J of the knife.

The dies K and L herein shown are of full size, and each is provided with a matrix having the form of half of a completed knife, the inclined walls M of such matrices operating to draw together and close the mouth of the bore, the blank being respectively flattened and shaped to form the neck of the knife by the parts N and O of the matrices.

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

1. A method of making table-knives, consisting in forming the knife-handle by boring out one end of a blank, and then closing the mouth of the bore by drawing it together in dies, and in forming the knife-blade by flattening and trimming the other end of the blank in dies, substantially as set forth.

2. A method of making table-knives, consisting in forming the knife-handle by boring out and flattening one end of a blank, and closing the mouth of the bore by drawing it together in dies, and in forming the knife-blade by flattening and trimming the other end of the blank in dies, substantially as set forth.

3. A method of making table-knives, con-

sisting in forming the knife-handle by boring
out one end of a blank, and closing the mouth
of the bore by drawing it together in dies, in
forming the knife-blade by flattening and
5 trimming the other end of the blank in dies,
and in forming the knife-neck by subjecting
the blank to the action of dies, substantially
as set forth.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

HUBERT C. HART.

Witnesses:

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