(No Model.)

G. M. GRISWOLD.

METHOD OF MAKING KNIVES.

No. 526,033. Patented Sept. 18, 1894.

Fig. 1.

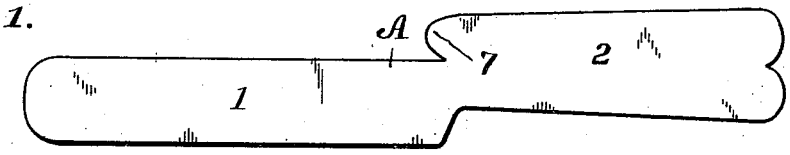


Fig. 2.

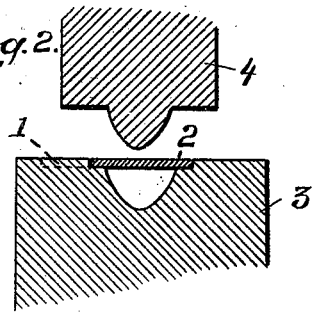


Fig. 3.

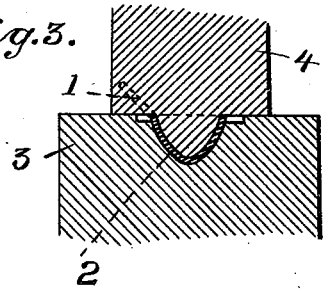


Fig. 4.

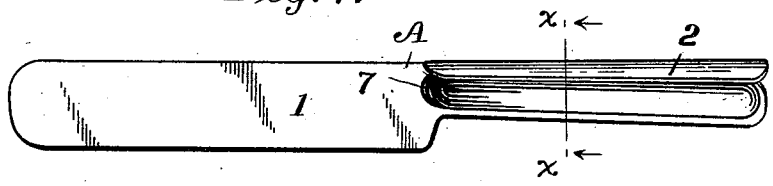


Fig. 5.

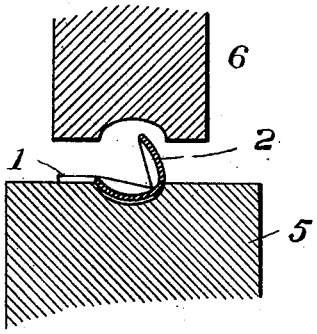


Fig. 6.

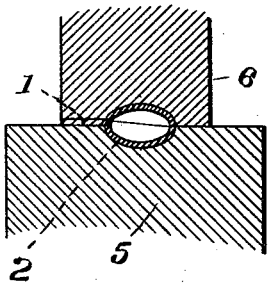
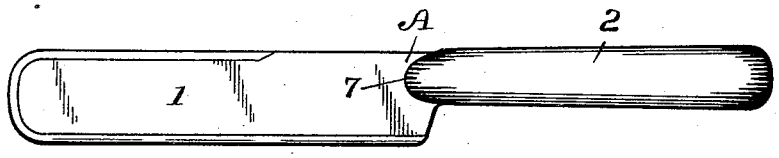


Fig. 7.



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METHOD OF MAKING KNIVES.

SPECIFICATION forming part of Letters Patent No. 526,033, dated September 18, 1894.

Application filed November 6, 1893. Serial No. 490,104. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. GRISWOLD, a citizen of the United States, and a resident of New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Methods of Making Knives, of which the following is a specification.

This invention relates to cutlery, and more particularly to knives or forks and the method of making the same which consists in producing a case knife and handle complete from a single piece of sheet metal by a series of operations. It is also an important object in the manufacture of this knife to provide it with a hollow handle, and one which will be light, tight and durable and at the same time to produce it in a manner which shall be inexpensive and for all purposes practical. This invention is equally applicable to all styles and grades of knives, from a toy knife to a carver, so long as it is desirable that the entire handle and knife should be produced of metal, and I also find that it is quite practical to subject this handle to the operation of ornamental dies and thus produce an ornamented handle. In the drawings however I have not shown this operation since it forms no part of the invention it being a well known step to those skilled in the art to which this invention relates.

In order that those skilled in the art to which this invention appertains may fully understand its construction and method of manufacture, I will proceed to describe the same in detail, reference being had to the accompanying drawings which form a part of this specification and in which the same numerals and letters denote like parts throughout the drawings.

It will be seen from the accompanying drawings that it takes practically but three operations upon the stock to produce my novel knife and handle.

The first operation is to stamp out the blank which is clearly illustrated in Figure 1 of the drawings. Fig. 2, shows a pair of forming dies the blank in a position to be operated upon. Fig. 3, shows the same pair of dies and the same blank the operation being completed. Fig. 4, shows the knife blank after the second operation and as it would appear when taken out from the dies, shown in Fig. 3. Fig. 5, shows the closing dies, the blank placed therein and ready for the closing and final operation. Fig. 6, shows the same dies as are shown in Fig. 5, also the blank, the operation completed. Fig. 7, shows the completed knife as taken from the dies illustrated in Figs. 5 and 6.

In this invention I do not wish to confine myself to the outline of the blank from which this knife and handle is produced, since this may be varied in many particulars. Nor do I wish to be confined to the form and number of these dies which are used to produce this knife and handle, since these may also be varied without departing from the spirit of the invention. In the accompanying drawings I have illustrated a preferred form of blank, also a thoroughly practical set of dies for working said blank.

Upon the accompanying drawings A indicates a blank which is stamped from sheet metal the same being of any suitable thickness. The blade portion thereof indicated by 1, and handle portion by 2, this blank is placed upon a female die 3 the handle portion of the blank being suitably placed over a recess in said die while the blade portion of the blank would extend beyond, and be clear from the operation of the dies. After this blank is properly placed upon this die as shown in Fig. 2 it would be operated upon by the male die 4, said operation being shown complete in Fig. 3. It will be seen that this operation upon the handle portion 2 of the blank leaves the handle a little more than half closed over. (See Figs. 4 and 5.) From these dies the blank is placed upon another die 5 which is sufficiently long enough to receive the entire blade and handle, and is operated upon in a similar manner by a corresponding die 6 which serves to swage the blank firmly together also turning the ends of the handles in forming them perfectly round and smooth, thus obviating the necessity of brazing and at the same time swaging the back of the blade and cutting edge which serves to stiffen and temper the knife.

In order to strengthen the knife at the junction of the blade and handle, where knives

are usually weak, I have extended the handle well upon the blade portion as is shown in the drawings and indicated by 7.

Having thus described my invention, I claim—

1. The herein described method of producing a case knife and handle from sheet metal, which first consists in stamping out a blank having a blade and handle portion, said handle portion extending upward and forward from line of back of blade, second forming longitudinal depressions in the opposite sides of said handle portion, and third closing said handle portion upon itself, thus forming a completed knife having a closed hollow handle integral with the blade.

2. The herein described method of producing a case knife and handle from sheet metal, which first consists in stamping out a blank having a blade and handle portion, said handle portion extending upward and forward from line of back of blade as shown, second forming longitudinal depressions in opposite sides of said handle portion, and extending slightly into the blade, third closing said handle portion over upon itself, forming a completed knife having a hollow handle extending into and integral with the blade portion thereof.

Signed at New Haven, in the county of New Haven and State of Connecticut, this 3d day of November, A. D. 1893.

GEORGE M. GRISWOLD.

Witnesses:

LOUIS A. BABCOCK,

JAS. M. PILCHER.