

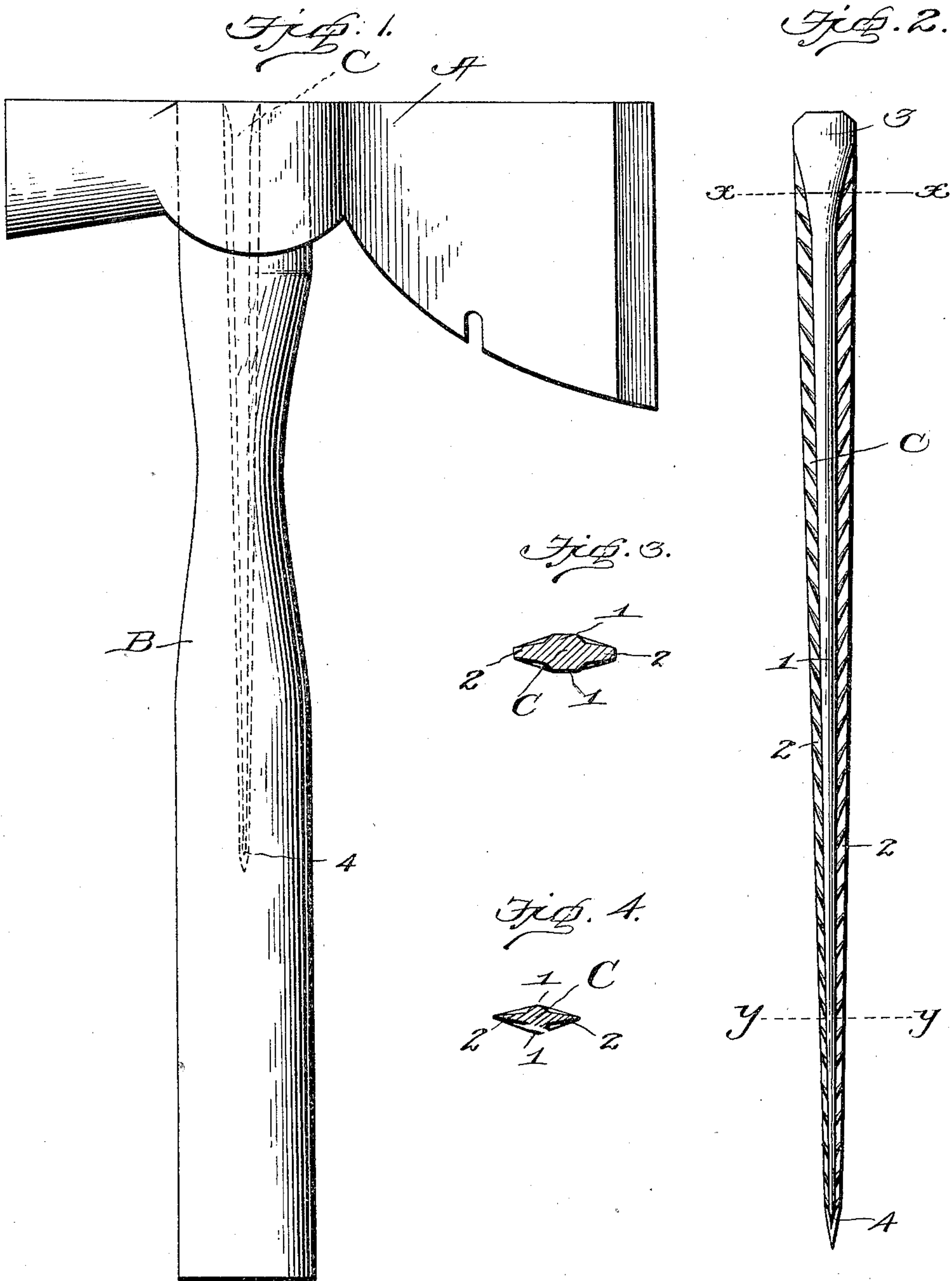
No. 706,184.

Patented Aug. 5, 1902.

J. H. KOCH.  
TOOL.

(Application filed May 1, 1902.)

(No Model.)



Inventor

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# UNITED STATES PATENT OFFICE.

JERRY HENRY KOCH, OF ALPHIA, WEST VIRGINIA.

## TOOL.

SPECIFICATION forming part of Letters Patent No. 706,184, dated August 5, 1902.

Application filed May 1, 1902. Serial No. 105,485. (No model.)

*To all whom it may concern:*

Be it known that I, JERRY HENRY KOCH, a citizen of the United States, residing at Alpha, in the county of Doddridge and State of West Virginia, have invented certain new and useful Improvements in Tools; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to tools, and more particularly to an improved form of wedge by means of which a tool may be more securely connected to its handle and the handle braced or strengthened at that portion hitherto subjected to the greatest strain and where breakage most often occurs.

The object of the invention is to provide a wedge of this character which shall be simple of construction, durable in use, comparatively inexpensive of production, and easily applied to tool-handles for effecting a secure connection of the tool to the handle.

With this and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, which will be hereinafter more fully described, and particularly pointed out in the appended claims.

Figure 1 is a side elevation showing in dotted lines the application of my improved wedge to a hatchet and its handle. Fig. 2 is a detail side elevation of the wedge. Fig. 3 is a cross-sectional view on line  $xx$ , and Fig. 4 is a similar view on line  $yy$ .

Referring to the drawings, A denotes a hatchet, and B the handle, inserted into the eye of the hatchet in the usual manner, but before which it is formed with a bore to receive a wedge.

C denotes the wedge, which consists of a piece of metal formed of longitudinal ribs 1 and flanges 2, projecting laterally therefrom at right angles to the line of projection of the ribs and formed with corrugations which are arranged at an acute angle to the length of the flanges. The wedge is formed with a driving-head 3, and from this driving-head these side flanges taper to a point 4, where they suddenly merge into the ribs, as shown, thus producing a penetrating-point. After the handle has been secured to the tool by having its

end inserted through the eye thereof the wedge is inserted into the bore previously made in the handle, and by subjecting it to several blows it is driven downwardly into the handle in the position shown in dotted lines in Fig. 1 until the head becomes flush with the outer end of the handle. There is no liability of the wedge becoming accidentally disengaged from the handle, for the reason that the corrugations, while permitting of the free and easy insertion of the wedge into the handle-bore, will prevent the withdrawal therefrom, owing to the direction of their projection. Of course it is understood that the bore in the handle will not in cross-section equal or be of the same shape as the wedge in cross-section, thereby causing said wedge to firmly bind itself in the bore when driven home. It will be noticed that the wedge extends a considerable distance of the length of the handle and materially strengthens that portion of the handle adjacent to the eye of the tool, at which point the handle most often breaks.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of the invention will be readily understood without requiring an extended explanation.

Various changes in the form, proportion, and details of construction may be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

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

1. A wedge for the purpose described, consisting of a body portion formed on its opposite sides with longitudinal ribs and upon its opposite edges with longitudinally-corrugated flanges, said flanges tapering from one end of the body portion to the other and merging into the ribs, substantially as set forth.

2. A wedge for the purpose described, consisting of a body portion formed on its opposite sides with longitudinal ribs and upon its opposite edges with longitudinally-corrugated flanges, said flanges tapering from one end of the body portion to the other and merging into the ribs, said body portion being provided



at its opposite end with a driving-head, substantially as set forth.

3. The combination with a tool having an eye, and a handle having a bore, said handle  
5 being fitted in said eye, of a wedge for the purpose described, consisting of a body portion formed on its opposite sides with longitudinal ribs and upon its opposite edges with longitudinally-corrugated flanges, said  
10 flanges tapering from one end of the body portion to the other and merging into the

ribs, said body portion being provided at its opposite end with a driving-head, substantially as set forth.

In testimony whereof I have hereunto set  
my hand in presence of two subscribing witnesses.

JERRY HENRY KOCH.

Witnesses:

J. RAMSEY,  
P. M. IRELAND.