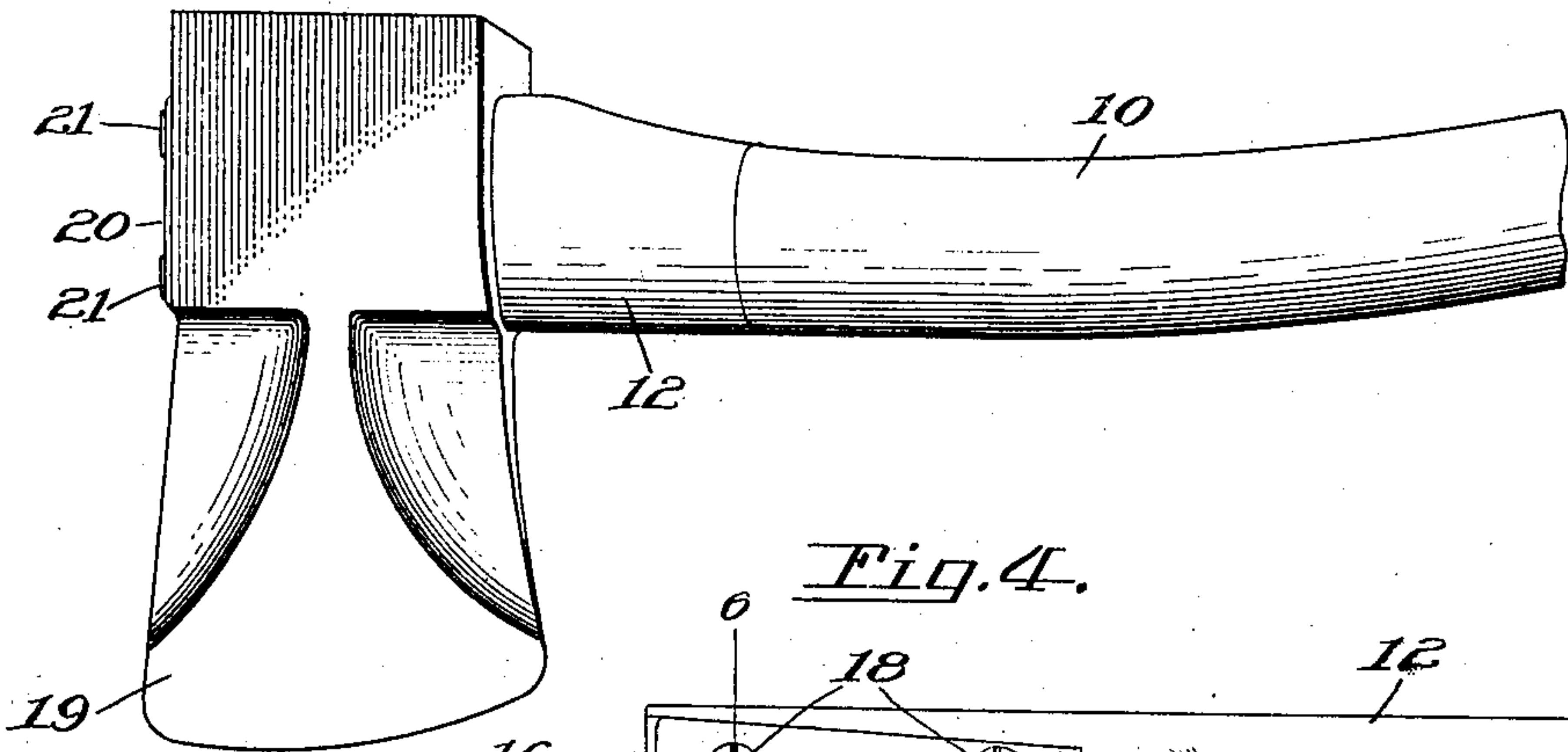


A. H. GRUIS.  
 AX HANDLE PROTECTOR.  
 APPLICATION FILED OCT. 13, 1908.

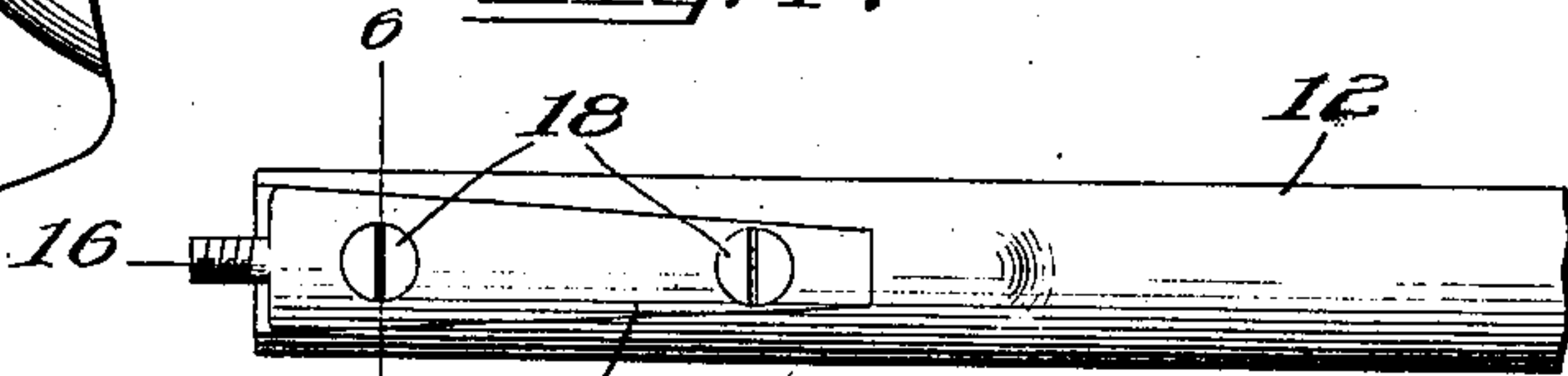
925,335.

Patented June 15, 1909.

*Fig. 1.*



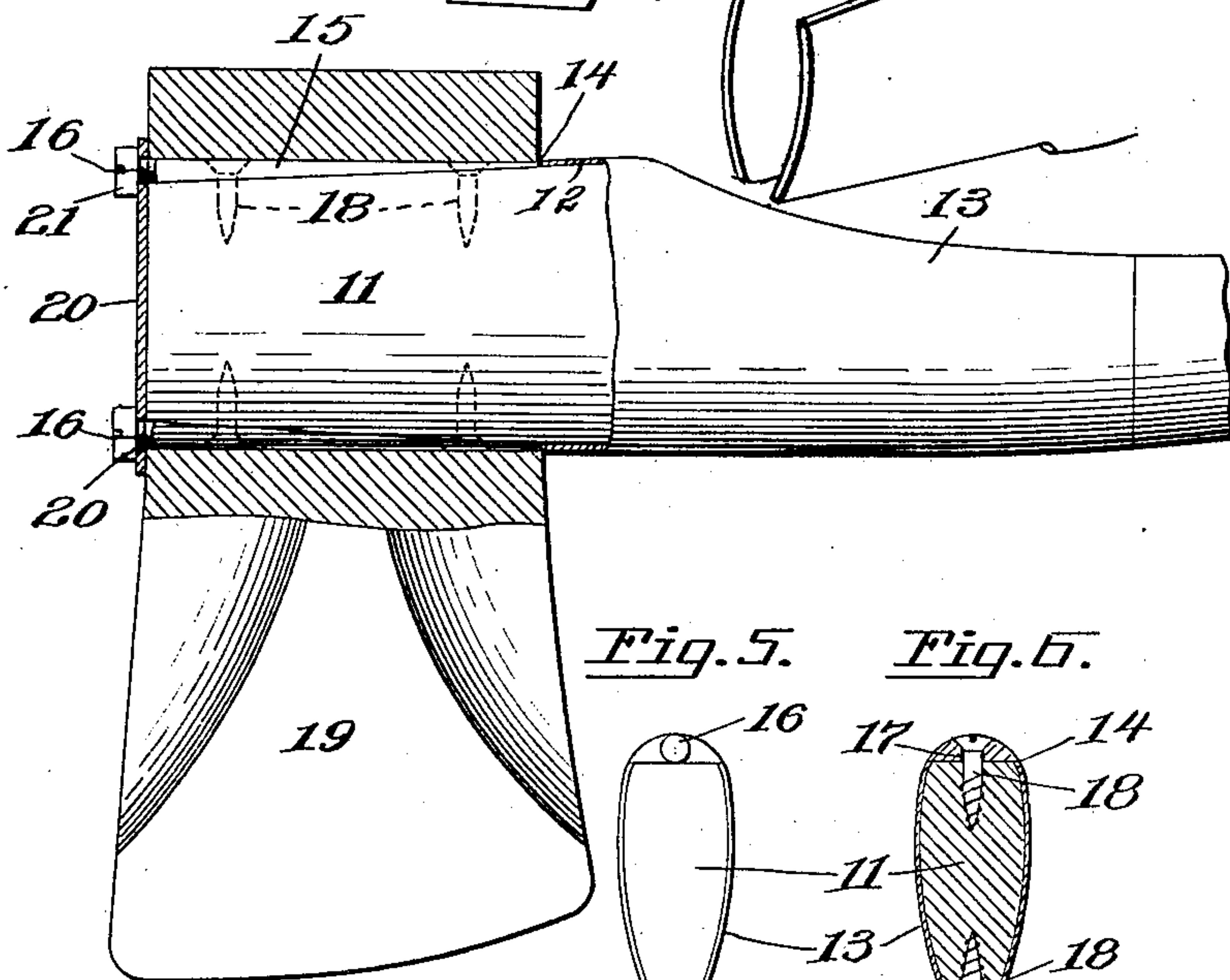
*Fig. 4.*



*Fig. 2.*

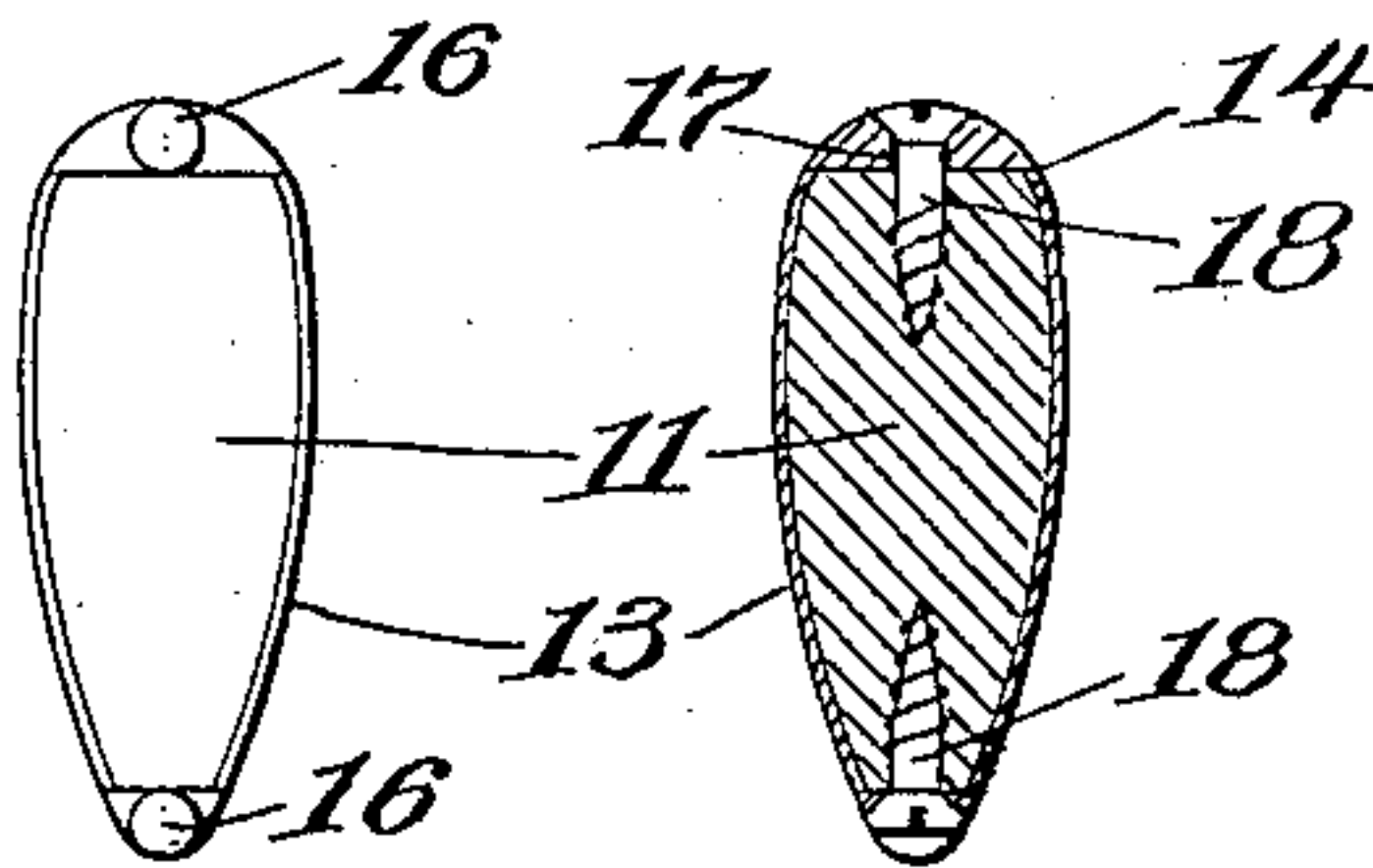
*Fig. 7.*

*Fig. 3.*



*Fig. 5.*

*Fig. 6.*



Inventor  
 Anton H. Gruis.

Witnesses

*F. C. Gibson.*  
*H. Allen.*

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 Attorney

# UNITED STATES PATENT OFFICE.

ANTON H. GRUIS, OF SIBLEY, IOWA.

## AX-HANDLE PROTECTOR.

No. 925,335.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed October 13, 1908. Serial No. 457,509.

*To all whom it may concern:*

Be it known that I, ANTON H. GRUIS, a subject of the Queen of the Netherlands, residing at Sibley, in the county of Osceola and State of Iowa, have invented new and useful Improvements in Ax-Handle Protectors, of which the following is a specification.

This invention relates to wood working tools, and more particularly to ax handle protectors, and has for an object to provide a device of this character which will be simple in construction, and which will effectively serve as means for preventing the displacement of the ax head from the handle, and which will also serve to prevent the breaking of the handle.

With these objects in view, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will more fully be described hereinafter and set forth with particularity in the claim appended hereto.

In the drawings, which illustrate the invention, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a perspective view of an ax handle and the cutting head showing the application of the present invention thereto. Fig. 2 is a side elevational view showing parts in section. Fig. 3 is an end view. Fig. 4 is a top plan view of a portion of the protector sleeve. Fig. 5 is an end view thereof. Fig. 6 is a transverse sectional view on the line 6-6 of Fig. 4. Fig. 7 is a detail perspective view of the sleeve.

Referring now more particularly to the drawings, there is shown an ax handle 10 having the enlarged head receiving portion 11 at the outer end thereof. The upper and lower edges of the portion 11 of the handle are beveled as indicated for the purpose to be hereinafter referred to. The portion 11 of the handle receives a metallic sleeve 12 provided with an inwardly directed reduced portion 13. The sleeve has portions thereof at the upper and under sides thereof cut away as indicated at 14 for receiving wedge shaped members 15 which are provided at their outer ends with threaded stems 16 disposed outwardly of the outer end of the han-

dle. The wedge shaped members 15 are each provided with passages 17 for the reception of screws or similar fastening devices 18 for engagement with the portion 11 of the handle. It will thus be seen that the screws effectively serve to securely hold the members 15 to the handle and also serve to prevent displacement of the sleeve 12.

From the construction described, it will be understood that the head 19, which may be of any suitable form, is adapted to receive through the eye thereof the portion 11 of the ax handle. In assembling the parts, the head 19 is driven onto the handle of the ax until the outer edge thereof lies flush with the outer end of the handle. A metallic plate 20 provided with openings 21 for receiving the stem 16 of the member 15 is located at the outer end of the handle, and to securely hold the plate in place, I provide fastening nuts 21, as shown.

The cut away portions 14 of the sleeve are dove-tailed in plan, and the members 15 are shaped to correspond to said dove-tailed cut away portions.

It will be seen that a simple and inexpensive device is provided which may be used in connection with ax handles and their cutting heads without materially changing the same, and a device as herein set forth and described will be found extremely effective for the purpose described.

Having thus fully described the invention what is claimed as new is:

A device of the class described comprising an ax handle and a cutting head therefor, in combination with a sleeve for receiving the cutting head, said sleeve having dove tailed grooves upon the upper and under sides thereof, wedge shaped members disposed in the grooves, a plate engaged with the wedge shaped members, and means for holding the plate against displacement from said members.

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

ANTON H. GRUIS.

Witnesses:

M. D. BILSBOROUGH,  
H. L. BILSBOROUGH.