

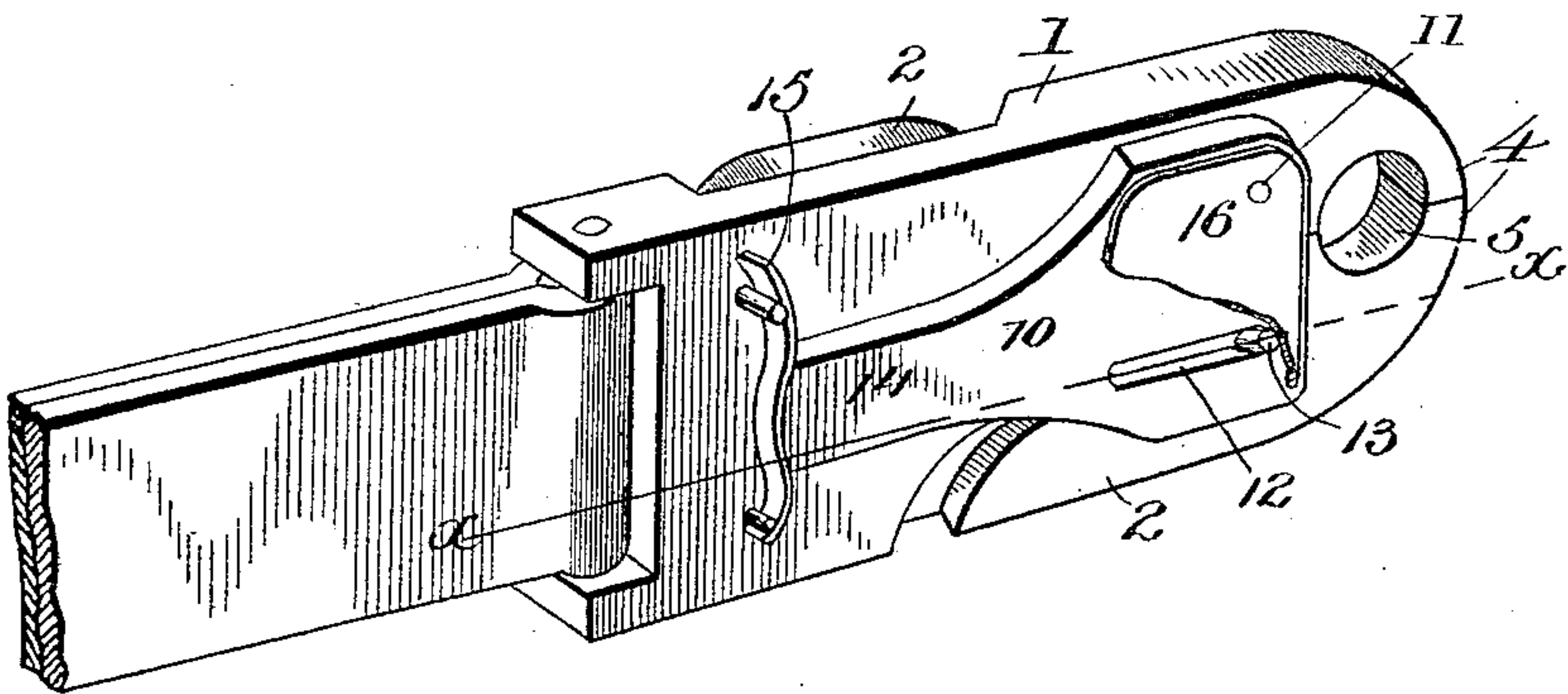
(No Model.)

J. W. HIMES.  
TRACE HOOK.

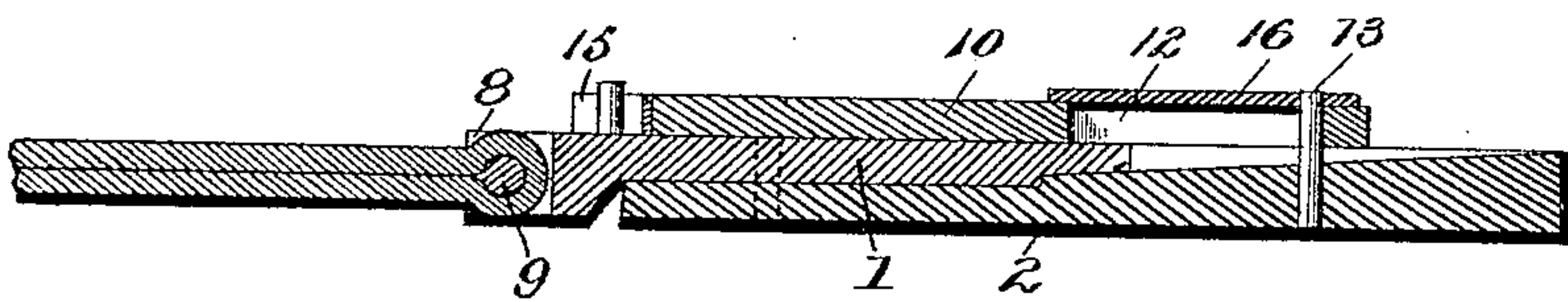
No. 529,328.

Patented Nov. 13, 1894.

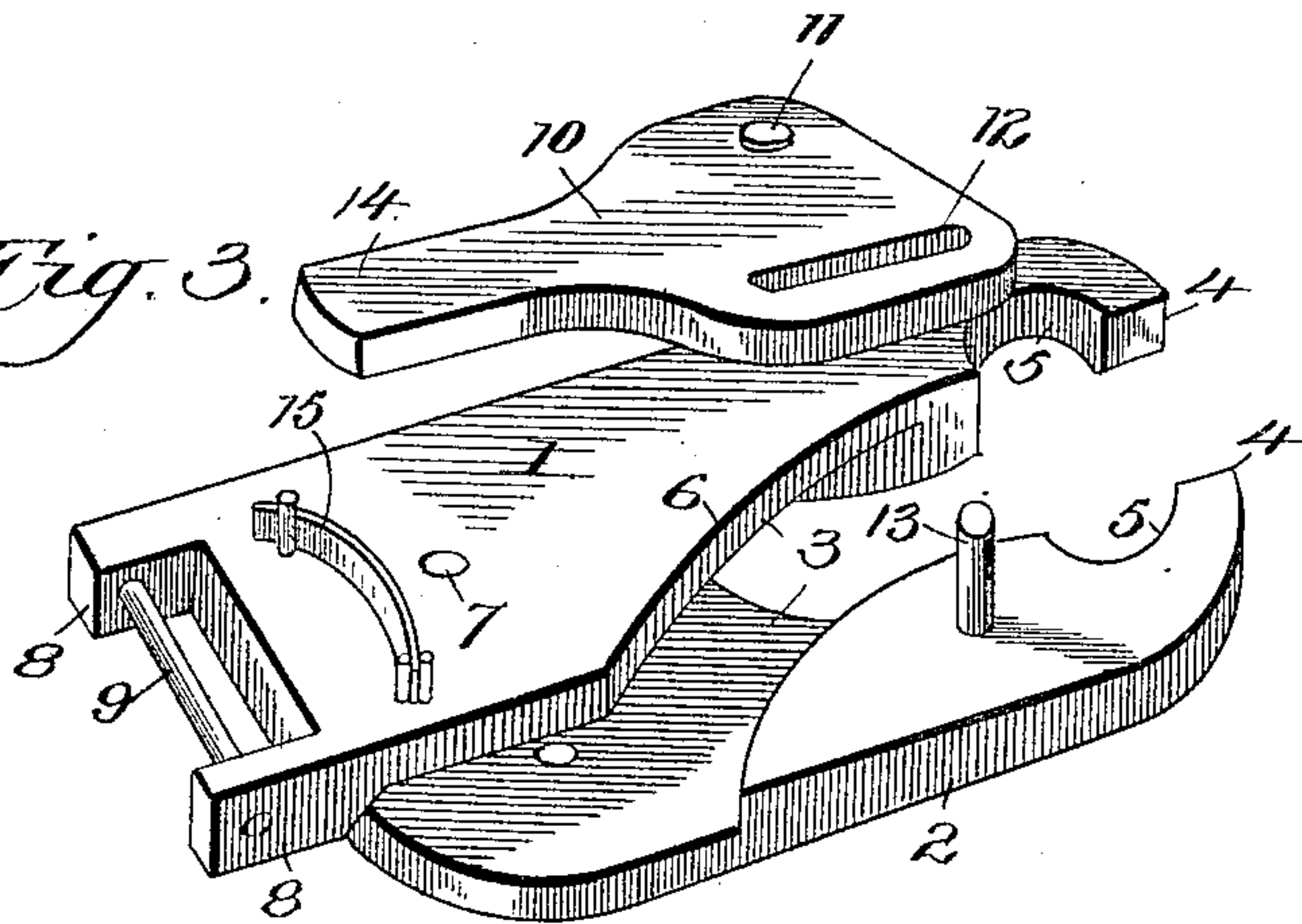
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses  
*J. P. Reynolds*  
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# UNITED STATES PATENT OFFICE.

JUDSON W. HIMES, OF ELMA, ASSIGNOR OF ONE-HALF TO J. WILL ANDERSON AND DANIEL GILLIES, OF CHEHALIS COUNTY, WASHINGTON.

## TRACE-HOOK.

SPECIFICATION forming part of Letters Patent No. 529,328, dated November 13, 1894.

Application filed July 23, 1894. Serial No. 518,338. (No model.)

*To all whom it may concern:*

Be it known that I, JUDSON W. HIMES, a citizen of the United States, and a resident of Elma, in the county of Chehalis and State of Washington, have invented certain new and useful Improvements in Trace-Hooks; and I do hereby 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.

This invention relates to trace hooks, and has for its object to provide a device of this character which will not accidentally become unfastened or unhooked however much the strain thereon may be varied, but one in which when opened properly can be readily manipulated, and is adapted for general use aside from being employed in connection with the trace.

With these and other objects in view the invention consists of the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of the improved track hook shown applied to a portion of the trace. Fig. 2 is a section on the line  $x-x$ , Fig. 1. Fig. 3 is a detail perspective view of the trace hook, the parts being disconnected.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

Referring to the drawings, the numerals 1 and 2 designate two jaws, which are placed against each other and have the faces thereof, which are adjacent, recessed as at 3 so that a close fitting of the two jaws may be attained, and bring their outer hooked ends 4 closely together and in alignment. The hooked ends 4 are formed by providing a semi-circular recess or slot 5 in each jaw, at the outer end, and from this point toward the opposite end each jaw is constructed with a curved wall 6 to gradually increase the thickness of the jaw and strengthen the same, or, in other words, to avoid removing as much of the metal as possible in the formation of the outer engaging ends at the point where the semi-circular recess 5 and the hooked ends 4 are located. The two jaws are pivotally connected by a

pin or bolt 7, and the jaw 1 has a pair of longitudinally disposed ears 8, through which extends a pin 9, thereby forming a recess and means for connection for the trace chain, link, 55 or loop.

Of course it will be understood that the hook as thus far described, and which will be more fully hereinafter referred to, is adapted to be used for any purpose, and different modes of attachment can be employed.

On the outer side of the trace hook is a cam lever 10, which is pivotally attached to the jaw 1 by a pivot pin 11, which is eccentrically mounted in the said cam lever, and opposite 65 to the position of the pin 11, the cam lever is formed with an elongated slot 12, through which extends a pin 13, and into the adjacent portion of the jaw 2. The rear end of the cam lever 10 is reduced as at 14, and bears against a frictional spring 15 extending transversely across the rear portion of the jaw 1, and which acts to hold the said cam lever in its adjusted position. Over the said cam lever, at the front portion thereof, is mounted a wear plate 16, which forms a bearing for the heads of the pins 11 and 13, and also covers the slot 12.

The slot 12 in the cam lever 10 is straight, and the pin 13 is stationary with the jaw 2, 80 and when the said lever is turned upward, the jaw 2 is forced away from the jaw 1 in view of the fact that the straight slot 12 coacts with the stationary pin 13, and thereby produces a leverage, which opens the jaw 2 as stated. When the lever 10 is moved into the position shown in Fig. 1, the jaws 1 and 2 are closed and the reduced end of the lever is held in frictional engagement with the spring 15. It will be seen that when the ring, eye, 90 or loop of the trace is in engagement with the hooked ends 4 of the jaws, that the strain, whether great or small, will not separate the jaws, because when the lever 10 is in the position shown in Fig. 2, the slot 12 is in such position as to form a lock with the pin 13 and prevent opening of the said jaws. 95

The device is exceptionally convenient in its operation, and may be constructed of any suitable material and in various sizes, and it is apparent that many changes in the details of construction may be made and substituted 100

for those shown and described, without in the least departing from the nature or spirit of the invention.

Having thus described the invention, what is claimed as new is—

1. The combination with a pair of jaws pivoted together at one end and adapted to separate at their free ends, of a lever pivoted eccentrically to one of the said jaws and having  
10 a longitudinal slot near the opposite edge, a pin projecting laterally from the jaw opposite that to which the said lever is pivoted and passing through the slot in the lever and a spring transversely disposed near the pivotal  
15 end of the jaws and adapted to engage with the end of the said lever to hold the latter in the required position, substantially as and for the purposes set forth.

2. The herein described trace hook, comprising two jaws pivoted together at one end,

one of the jaws having a loop to receive the trace and each jaw having its forward end notched in co-incident relation on the meeting edge and widened on curved lines, a cam shaped lever pivoted to one of the jaws and  
25 having a longitudinal slot 12, a pin 13, projecting from the opposite jaw and working in the slot 12 and a transversely disposed spring 15 adapted to engage with the end of the said lever and hold the latter in the required position, substantially as and for the purposes set forth. 30

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JUDSON W. HIMES.

Witnesses:

DAVID E. VERNON,  
JOSEPH D. ANDERSON.