

F. E. BURNHAM.
SHAFT ATTACHMENT.
APPLICATION FILED MAY 14, 1912.

1,155,210.

Patented Sept. 28, 1915.

Fig. 1.

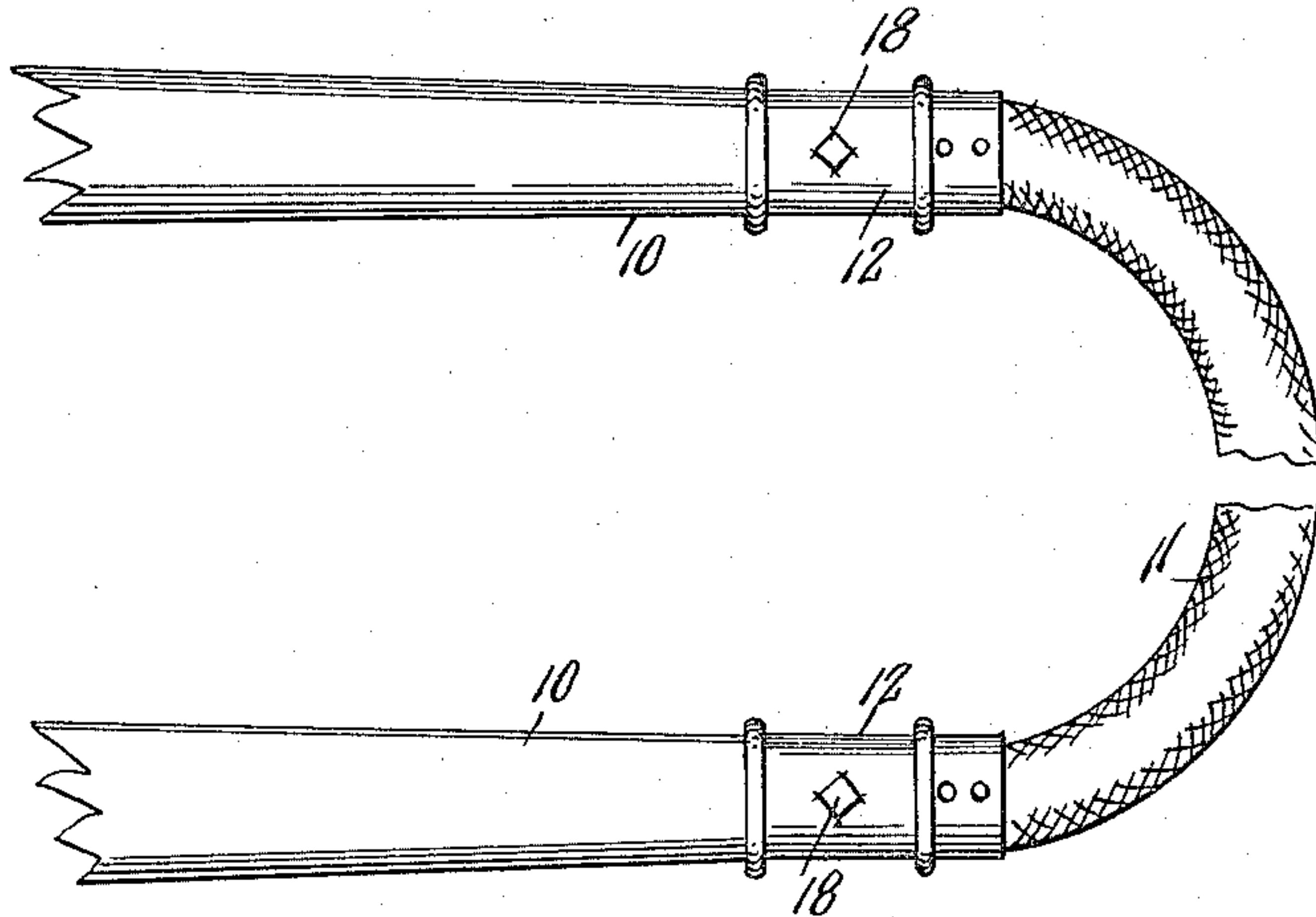


Fig. 2.

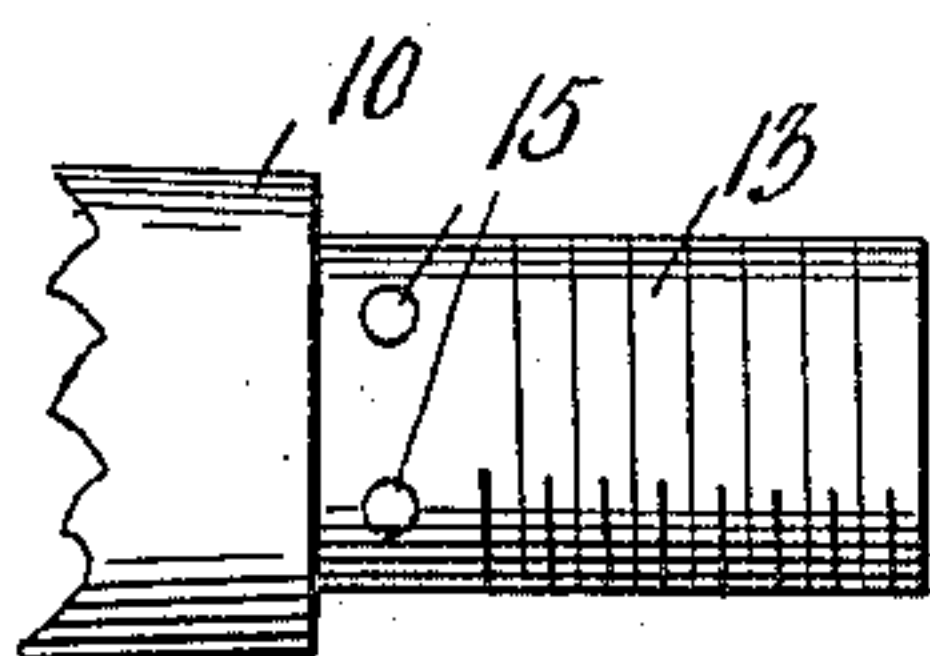
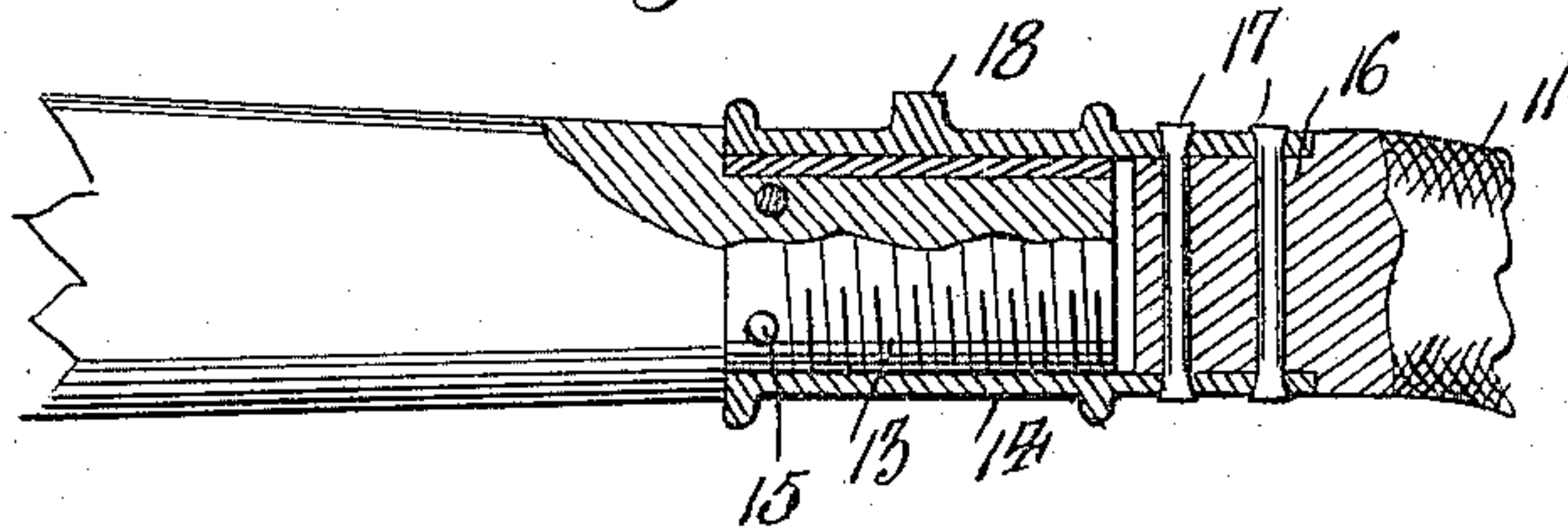


Fig. 3.

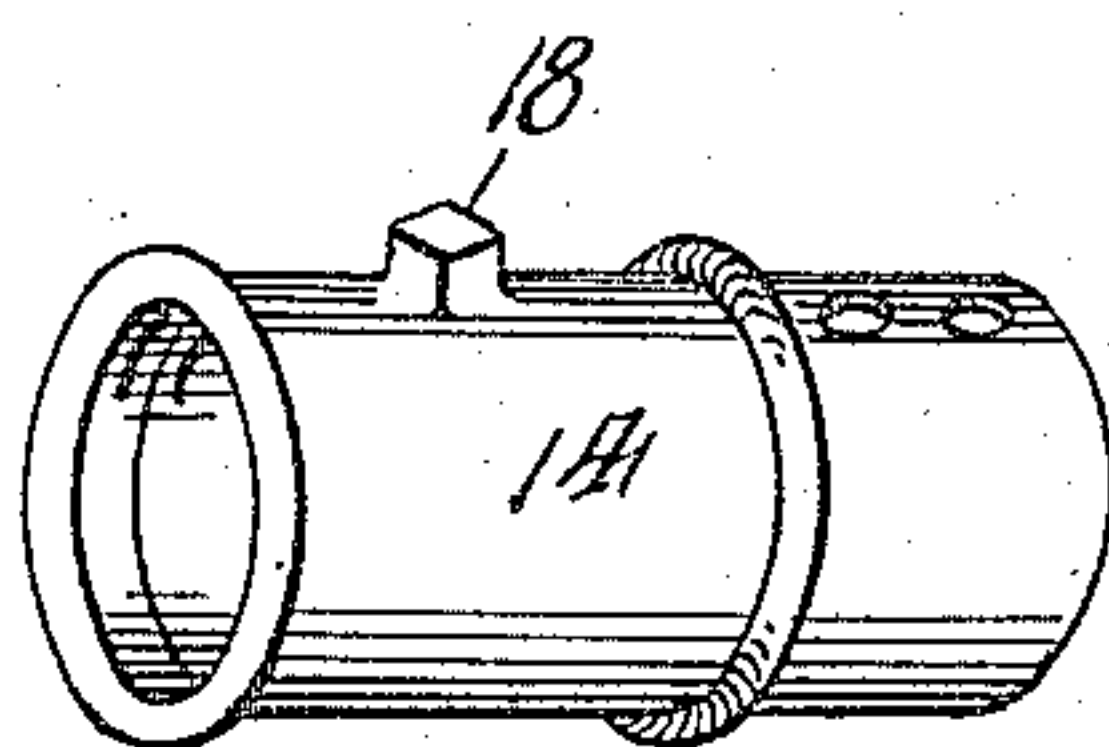


Fig. 4.

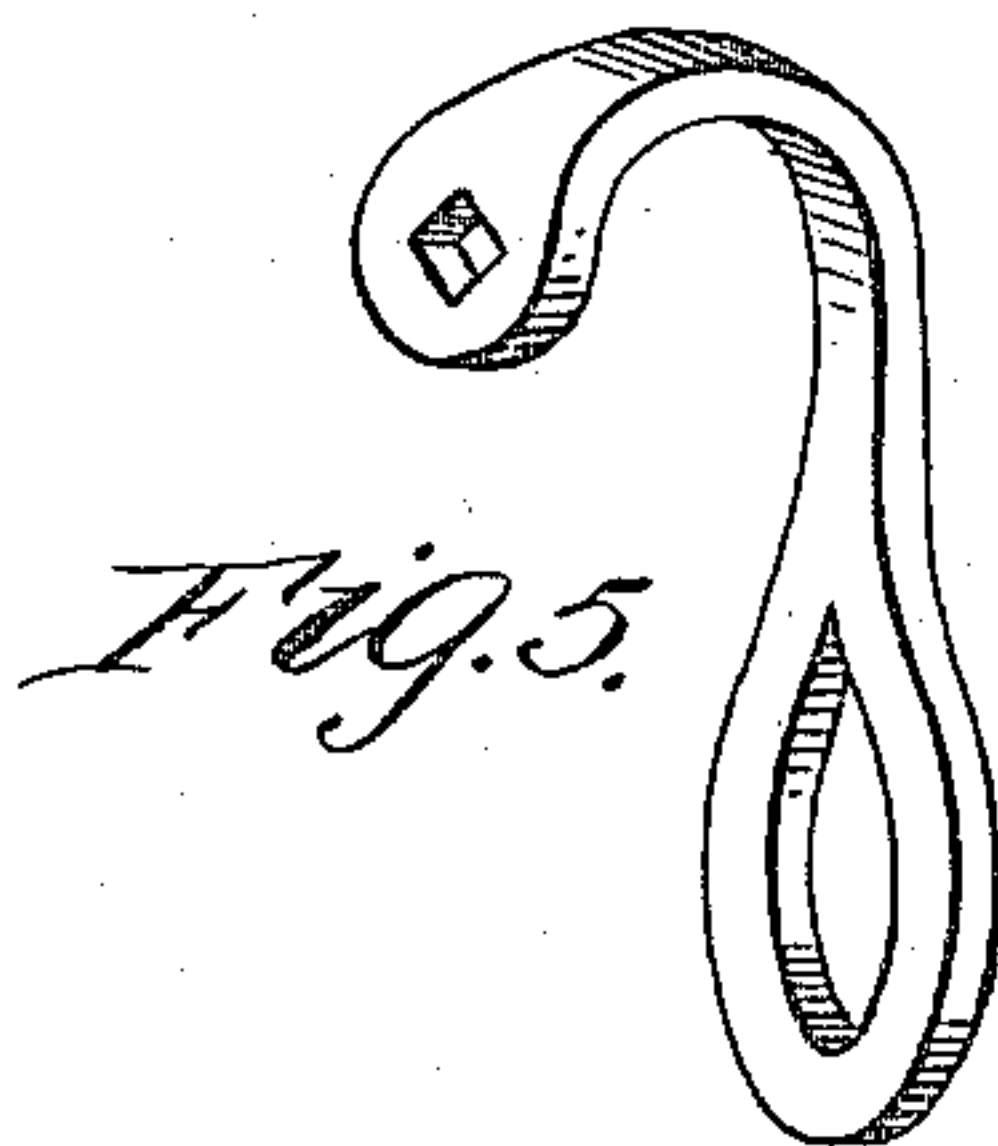


Fig. 5.

WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

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SHAFT ATTACHMENT.

1,155,210.

Specification of Letters Patent.

Patented Sept. 28, 1915.

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To all whom it may concern:

Be it known that I, FREDERICK E. BURNHAM, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented new and useful Improvements in Shaft Attachments, of which the following is a specification.

This invention relates to shaft attachments, and more particularly to a means for flexibly connecting the ends of the vehicle shafts.

An object of this invention is the provision of a shaft attachment or guard, embodying a flexible rod-like member of sufficient cross section to resist independent turning movement of its end, which flexible member is connected to the ends of the shaft by screw-threaded engagement thereby providing a firm and secure connection and also preventing the loosening of one end independent of the other.

A further object of the present invention relies in the means before mentioned which will be inexpensive in the cost of manufacture, strong, durable, efficient in use and which may be readily operated.

A great many serious accidents occur in connection with horse driven vehicles, this occurring from the horse becoming partly detached from the vehicle when he runs away, whereby the shafts are broken and the vehicle in numerous instances upturned. It is my object to overcome this difficulty and prevent the horse from becoming detached from the shafts and thereby obviating the danger of the vehicle being upturned. By providing a connecting means between the ends of the shafts it is apparent that the horse is unable to leave the same.

With the above and other objects in view, this invention consists of the novel construction, combination and arrangement of parts as will be hereinafter more fully described, claimed and particularly pointed out in the appended drawings, in which:—

Figure 1 is a plan view of my invention as applied to the end of a double shaft, Fig. 2 is a detail side elevation showing a coupling member in section, Fig. 3 is a detail end of the shaft, Fig. 4 is a perspective view of the female member of the coupling, and Fig. 5 is a perspective view of the wrench.

Referring now more particularly to the drawings, wherein like parts are indicated

by like reference characters throughout the several views, the numeral 10 indicates the forward ends of a double shaft which are connected together by means of a flexible member 11. The ends of the flexible member 11 are connected to the ends of the shafts by means of suitable couplings 12. These coupling members 12 consist of the male member 13 and female members 14 which are attached to the ends of the shafts and flexible member respectively. The ends of the shafts 10 are reduced to receive the male members 13 and these male members consist of the sleeve which is secured to the end of the shaft by means of cross pins 15 and is provided with screw-threads on its periphery to receive the screw threads mounted in the interior of the female members 14.

The flexible member 11 is made preferably of leather, but it is to be understood that any desired material may be used which will be light when in use to prevent the imparting of weight to the ends of the shafts. The ends of the flexible member are reduced as at 16 to receive the female members 14 and cross pins 17 extend through the said reduced portion of said flexible member and said female members for forming a rigid connection therebetween.

Square lugs 18 are formed integral with and project outwardly from the outer surfaces of the female members 14 and serve as a means for attaching a wrench to the members for attaching or detaching them to or from ends of shafts.

In Fig. 5 of the drawings I have shown a wrench which forms no part of the present invention, but it is shown to illustrate suitable means by which the female member may be rotated. This wrench is stamped preferably from one piece of sheet metal, the lower end of which is bent as is shown to form a handle, whereas its upper end is curved to conform to the configuration of the outer periphery of the female member and the extremity is enlarged and provided with a squared aperture to receive the raised portion 18 of the female member. And it will be apparent that upon turning the said wrench, as applied to the female member, the same may be rotated in either direction.

From the foregoing description, taken in connection with the accompanying drawings, it is manifest that I have constructed a flexible member whereby the ends of shafts

may be flexibly connected which will overcome the disadvantages found in shafts now in use.

It is to be further understood that other
5 minor details of construction may be resorted to that come within the scope of the appended claims without departing from the spirit of the present invention.

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

1. In a shaft attachment, a shaft structure having externally threaded ferrules on the respective ends thereof, a flexible mem-
15 ber, non-rotatable complementally threaded nipples carried by the opposite ends

thereof, said nipples being engageable with the threaded ferrules on the shaft structure, as and for the purpose set forth.

2. A shaft attachment, including, in com- 20
bination with a plurality of shafts having externally threaded ferrules thereon, a flexible member having internally threaded tubular members on the opposite extremities
thereof for engagement with said threaded 25
ferrules, said tubular members having lugs thereon to facilitate their removal.

FREDERICK E. BURNHAM.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."