

No. 828,621.

PATENTED AUG. 14, 1906.

H. E. MARTIN.

AXLE.

APPLICATION FILED OCT. 5, 1905.

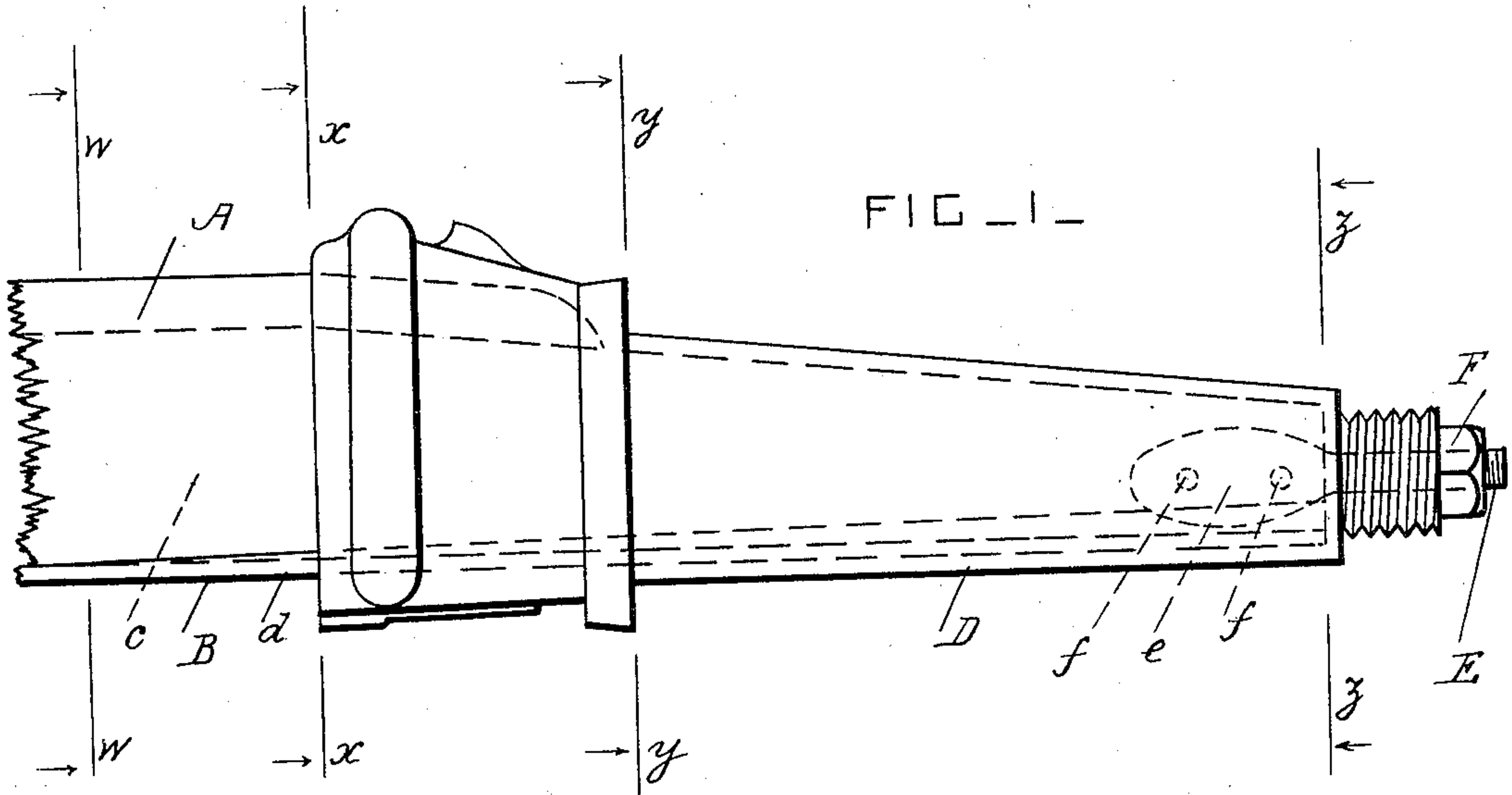


FIG. 2 -

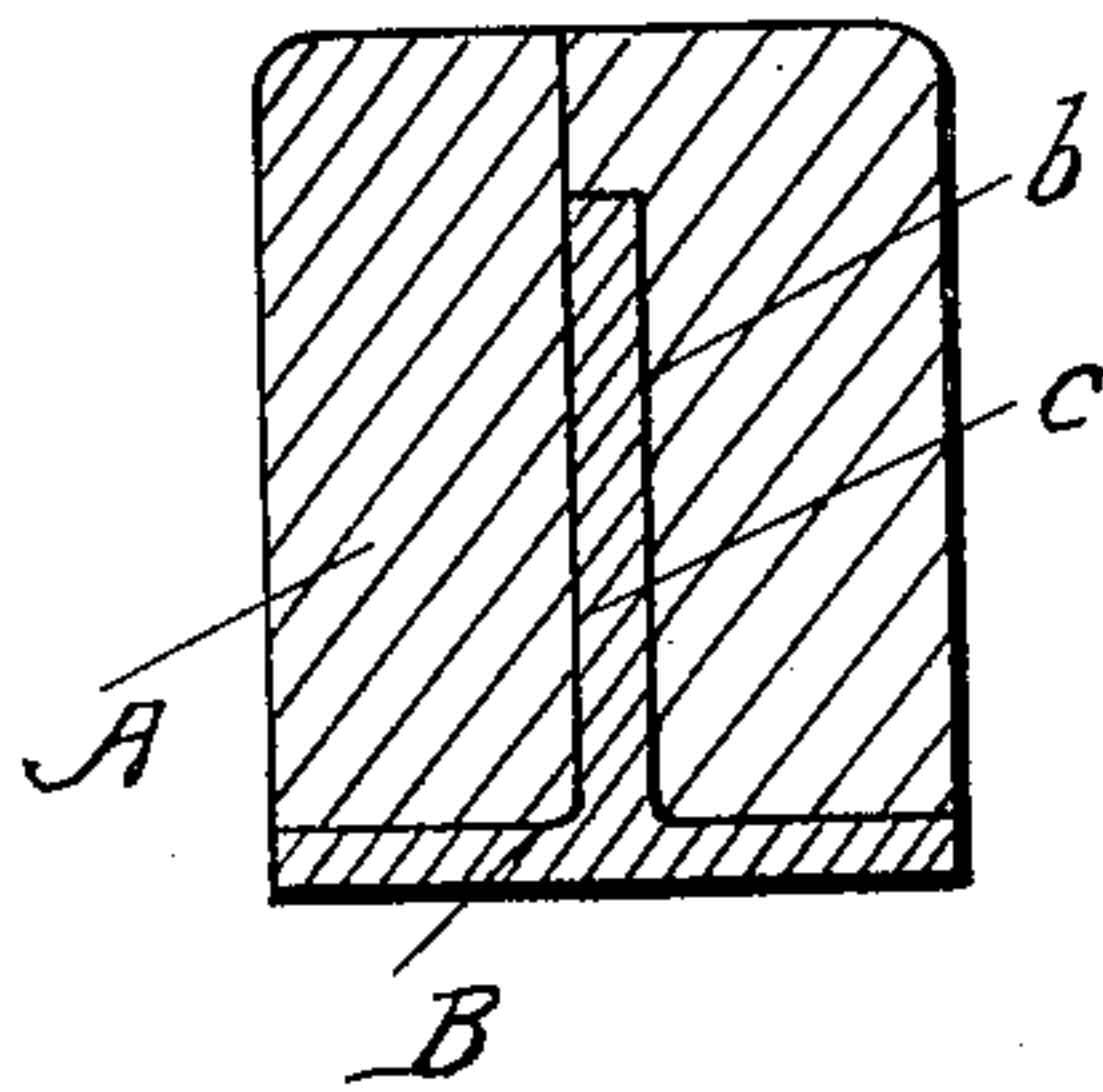


FIG. 3 -

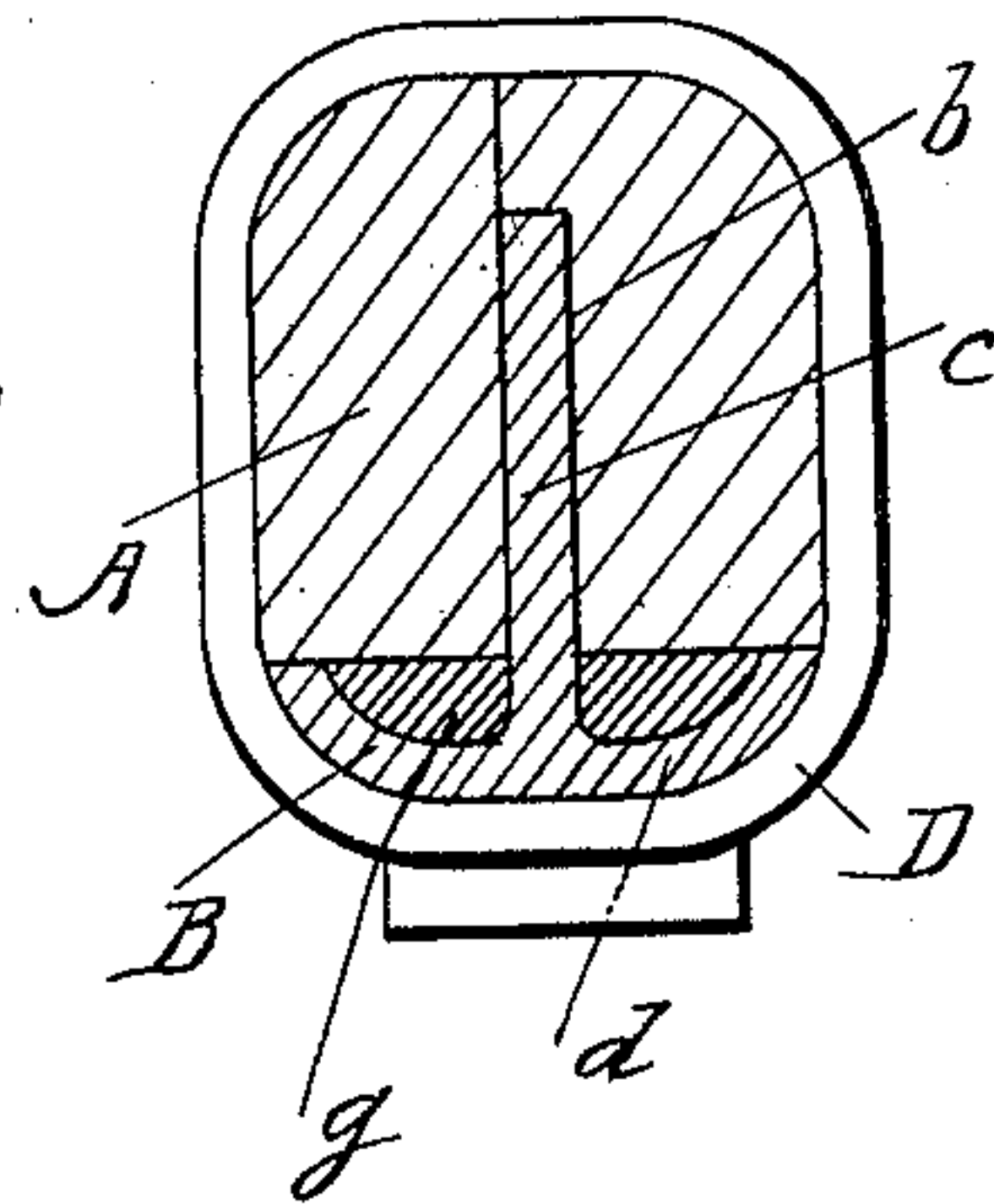


FIG. 4 -

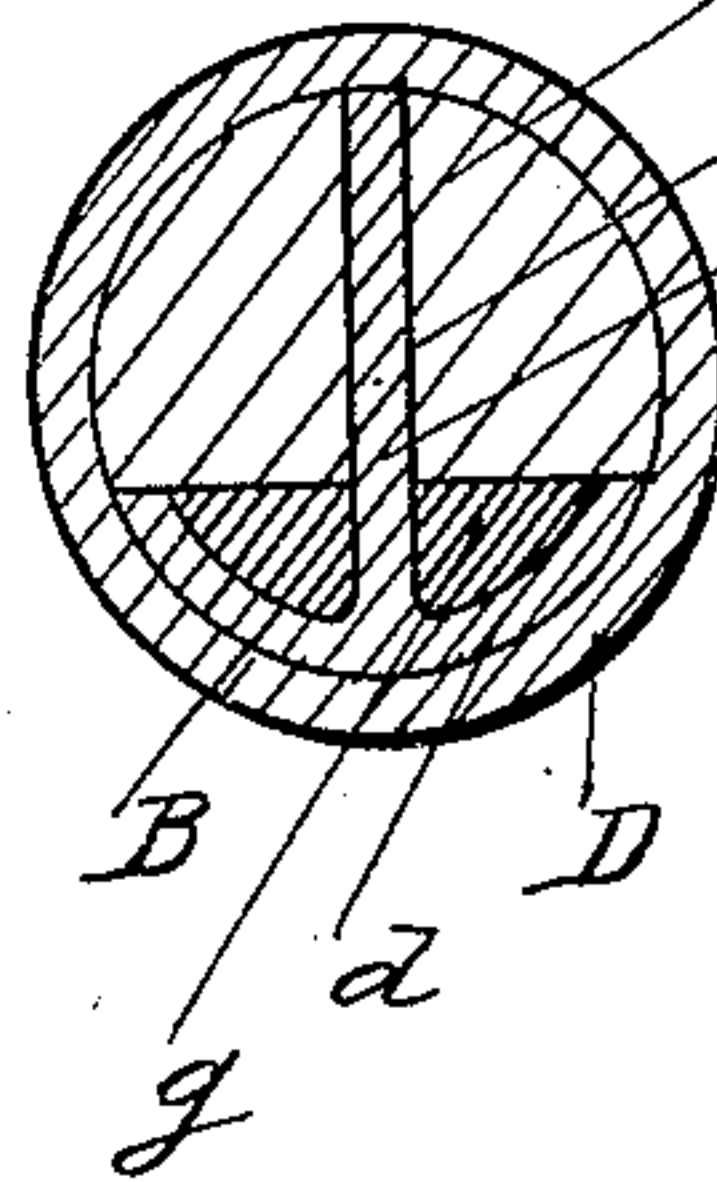
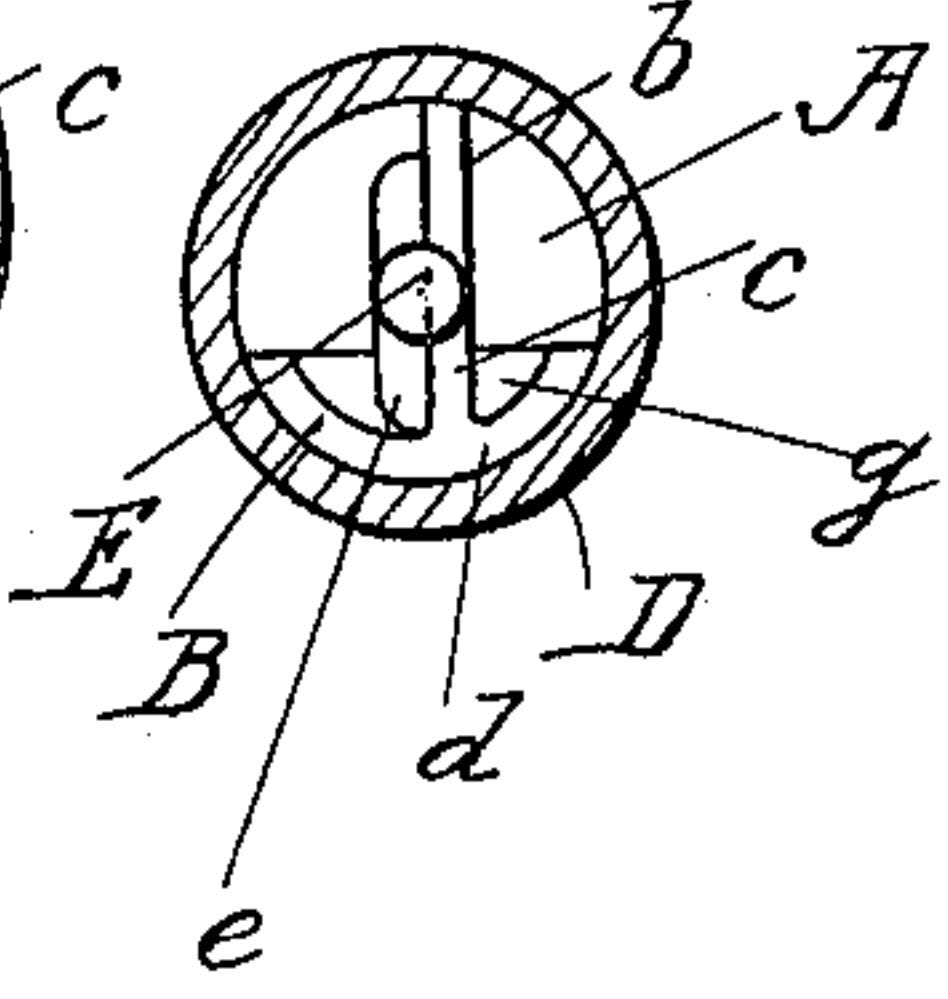


FIG. 5 -



WITNESSES:

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AXLE.

No. 828,621.

Specification of Letters Patent.

Patented Aug. 14, 1906.

Application filed October 5, 1905. Serial No. 281,424.

To all whom it may concern:

Be it known that I, HORACE EMMERSON MARTIN, a citizen of the United States, residing at Athens, in the county of Clarke and State of Georgia, have invented certain new and useful Improvements in Axles; 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 axles for vehicles; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of one end portion of an axle constructed according to this invention. Figs. 2, 3, 4, and 5 are cross-sections through the axle, taken on the lines *w w*, *x x*, *y y*, and *z z*, respectively.

The body portion of the axle is formed of wood A, and it is provided with a longitudinal groove or channel *b* in its under side. The body portion is preferably formed of two pieces of wood arranged side by side and having the said groove formed between them.

B is a metallic bar, preferably of steel and T-shaped in cross-section. This bar extends along the under side of the body portion A of the axle, and its web *c* is inserted in the groove or channel *b*.

The end portions of the axle-body are formed to fit inside the axle-skeins D, which are of any approved form and construction. The end portions of the metallic bar are also formed to fit inside the axle-skeins, and the head *d* of the bar is bent to concavo-convex form where the axle-skeins slip over it.

The extreme end portions of the bar have screw-threaded bolts E secured to them on the axis of the axle-bearings. These bolts E preferably have plates *e*, which are secured to the web of the bar by rivets *f*.

Nuts F are provided on the bolts E, and these nuts bear against the ends of the axle-skeins, so that the metallic bar forms a brace for the body portion of the axle. Packing *g*, of soft material, may be placed in the concavo-convex portions *d*.

The side portions of the head are bent upwardly to form the concavo-convex portions *d*, and the thickness of the side portions of the head is not reduced. The convexity of the cavities thus formed increases toward the ends of the axle, the said cavities being tapering in form. The soft packing is forced into these cavities, so that it fills them tightly and unyieldingly and forms a good bed for the wooden part of the axle. In this manner the cost of fitting the wood into the cavities is obviated and a good joint is formed.

What I claim is—

1. In an axle, the combination, with a body portion of wood having a longitudinal channel, of a metallic bar T-shaped in cross-section and having its web inserted in the said channel, an axle-skein inclosing the end portions of the said body portion and bar, and a packing of soft material interposed between the said body portion and the head of the said bar inside the said skein.

2. In an axle, the combination, with a body portion of wood having a longitudinal channel, of a metallic bar T-shaped in cross-section and having its web inserted in the said channel, the head of the said bar being flat at the middle part of the bar and concavo-convex at its end portion, an axle-skein inclosing the end portions of the said body portion and bar, and a packing of soft material arranged in the concavo-convex portion of the head of the said bar within the said skein.

3. In an axle, the combination, with a body portion of wood having a longitudinal channel, of a metallic bar T-shaped in cross-section and having its web inserted in the said channel, the end portion of the head of the said bar being bent upwardly to form two tapering concavo-convex cavities, packing filling the said cavities and forming a bed for the end portion of the wooden part of the axle, and an axle-skein inclosing the end portions of the said body portion and bar.

In testimony whereof I have affixed my signature in the presence of two witnesses.

HORACE EMMERSON MARTIN.

Witnesses:

W. H. KYTLE,

T. H. NICKERSON.