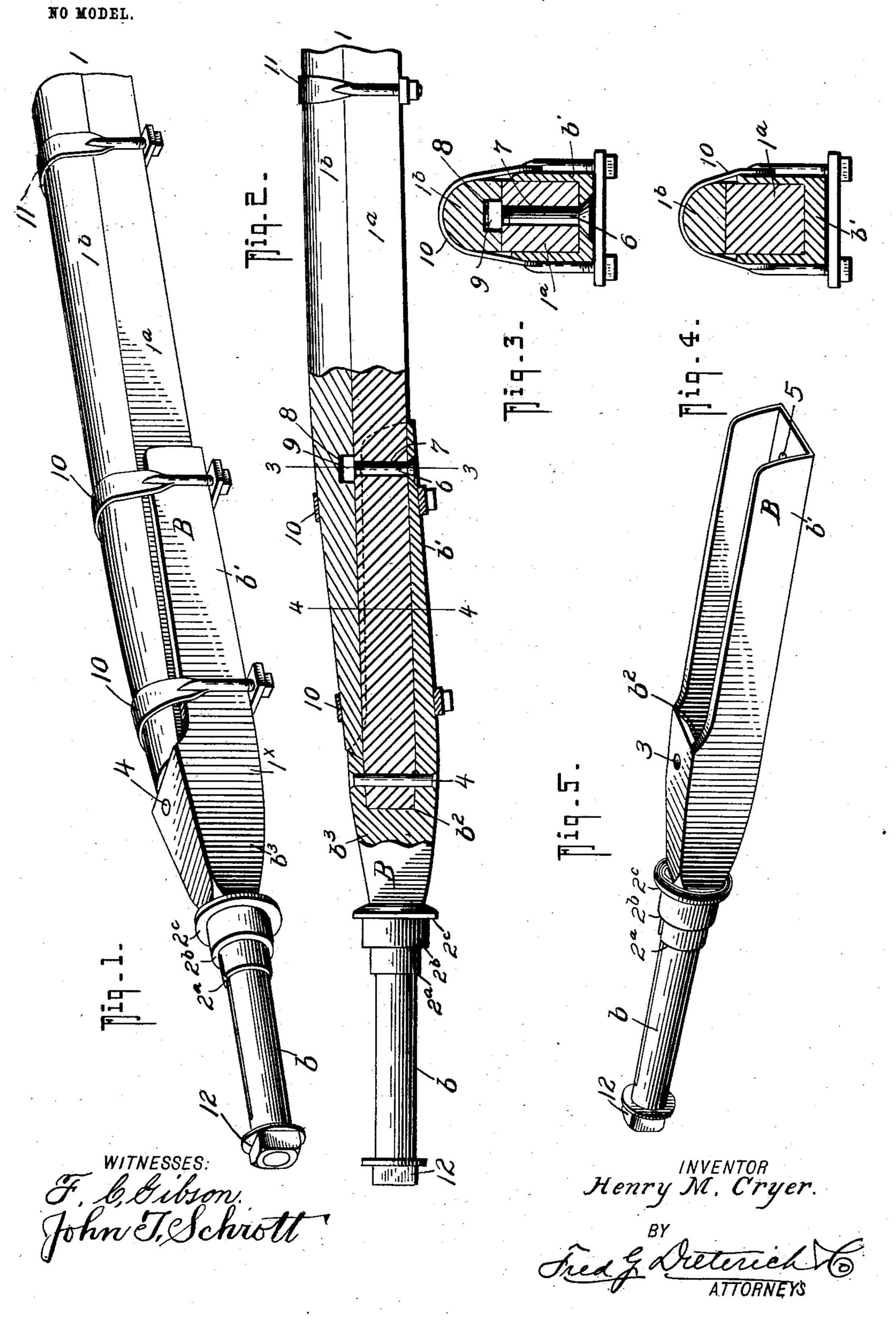
H. M. CRYER. AXLE SKEIN.

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United States Patent Office.

HENRY M. CRYER, OF GOLDTHWAITE, TEXAS.

AXLE-SKEIN.

SPECIFICATION forming part of Letters Patent No. 740,093, dated September 29, 1903.

Application filed June 17, 1903. Serial No. 161,845. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. CRYER, residing at Goldthwaite, in the county of Mills and State of Texas, have invented a new and 5 Improved Axle-Skein, of which the following

is a specification.

My invention relates to improvements in that class of axle-skeins or spindle-holders in which the axle is formed with a tapering portion, the spindle with a box or housing to receive the said tapering portion, and means for joining the axle with the housing for holding the same rigidly and from endwise movement; and my present invention comprehends cer-15 tain improvements in this class of skeins or spindle-holders whereby to provide a simple and inexpensive construction and in which the connections are such that the parts can be conveniently joined or separated and when 20 joined produce a strong and durable combination of the same; and with these ends in view my invention consists in the peculiar relation and detail construction of parts hereinafter fully described, and specifically point-25 ed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of one end of an axle, a spindle, and my improved skein 30 connections therefor. Fig. 2 is a longitudinal section thereof. Fig. 3 is a transverse section on the line 3 3 of Fig. 2. Fig. 4 is a similar view on the line 4 4 of Fig. 2. Fig. 5 is a detail view of a spindle with its attached

35 skein or axle receiving portion.

The axle 1 is of the usual double - section type, of either wood or metal, and the lower section 1a is of the same shape throughout its length. The upper section 1^b is mounted at 40 the top, as shown, and in my construction is of somewhat less length than the lower section 1^a, whereby to provide end extensions 1[×], the purpose of which will presently appear.

The axle holder or skein B is formed in-45 tegral with the axle-spindle b, as best shown in Figs. 2 and 5, from which it will be noticed the same consists of a longitudinally \(\bu\)shaped portion b', the inner end of which terminates in a square socket b^2 , that extends 50 to the solid shoulder portion b^3 , and the said socket has its top and bottom portions converging toward the shoulder, whereby to pro-

duce a tapering space to snugly receive the end portion of the axle-sections. (See Fig. 2.)

The top and bottom members of the closed 55 portion of the socket are apertured, as at 3, to receive a key or rivet-pin 4, that passes through the extended end of the axle and forms the means for rigidly joining the end of the axle within the holder or skein, and at the outer 60 end the bottom of the U-shaped portion of the holder B has a countersunk aperture 5 for the passage of a stout bolt 6, which when fitted in place also passes through an aperture 7 in the bottom axle-section and extends 65 up into a socket 8 in the under face of the upper section (see Figs. 2 and 3) and engages with a nut 9, held in the said socket, the upper end of the bolt being threaded to interlock with the nut, as shown.

By reason of the nut connection at the outer end and the bolt-fastening means at the inner end of the holder the axle is firmly secured at two points and not alone held from longitudinal movement with respect to the 75 skein or holder, but also rigid from lateral play therein and also for being easily detached

from the holder when necessary.

To further brace the holder and axle and to firmly hold the two axle-sections together, or- 80 dinary clip members 10.10 are used, which extend around the holder B and over the axle-top, the supplemental clips 11 being also used on the axle portions, and to further bolt the axle from vertical play within the holder 85 the ends of the upper axle-section are made tapering to produce a wedge-tight joint between the ends of the axle and the lever portion of the holder.

The axle-spindle is integral with the skein 90 or holder B and at the point where it merges with the axle-shoulder the same has three butts or end bearings 2° 2° 2°, which serve to keep the axle-box from wearing the axle at the main shoulder, reduces the lateral wear 95 of the box to the minimum, and thereby holds the wheel from undue lateral motion on its spindle.

12 designates the usual axle nut or bur.

I am aware that axle-skeins embodying the 100 generic arrangement of parts shown and described have heretofore been provided.

My invention, so far as I know, differentiates from what has heretofore been done in

this line in the peculiar construction of the holder or skein and the manner in which the axle-sections are held and secured therein.

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

The combination of an axle composed of an upper and a lower section, the lower section being extended at the ends beyond the upper section, the said upper section having its ends tapering, an axle skein or holder comprising a socket portion whose top and bottom members converge and an integral inwardly-projecting Li-shaped portion adapted to receive the lower axle-section, the ends of the two axle-sections being arranged to project into the socket portion of the skein, a key-fastening through the said socket portion and the ex-

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tended end of the lower axle-section, a bolt which passes up through the outer end of the 20 \$\subset\$ -shaped portion of the skein, and the lower axle-section, the said upper axle-section having a socket in its under side and a nut held therein adapted to engage with the aforesaid bolt, a spindle integral with the skein, a main 25 shoulder and supplemental shoulders integral with the inner end of the spindle and outer ends of the skein, and clips extending over the skein and the axle, all being arranged substantially as shown and for the purpose described.

HENRY M. CRYER.

Witnesses:

L. E. PATTERSON, W. I. TAYLOR.