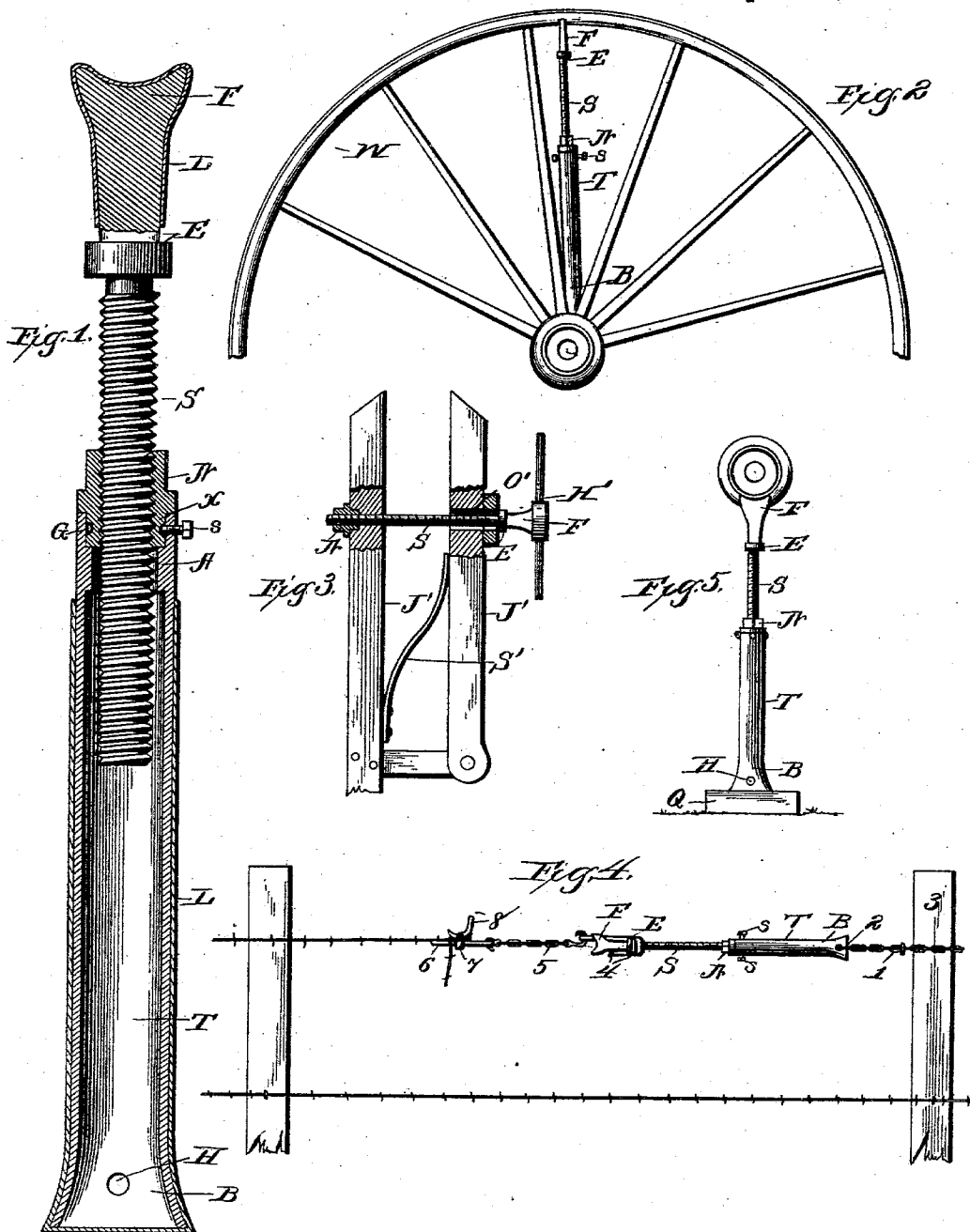


(No Model.)

W. H. HAMBLLEN.
TOOL FOR TIGHTENING WHEEL TIRES.

No. 473,223.

Patented Apr. 19, 1892.



Witnesses

Inventor

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WILLIAM HENRY HAMBLLEN, OF HUNTSVILLE, TEXAS.

TOOL FOR TIGHTENING WHEEL-TIRES.

SPECIFICATION forming part of Letters Patent No. 473,223, dated April 19, 1892.

Application filed October 20, 1891. Serial No. 409,325. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY HAMBLLEN, a citizen of the United States, residing at Huntsville, in the county of Walker and State of Texas, have invented a new and useful Tool for Tightening Tires, of which the following is a specification.

This invention relates to carriages and wagons, and more especially to the tire-tighteners thereof; and the object of the same is to produce an improved tool of this character.

To this end the invention consists in a device constructed substantially as hereinafter more fully described and capable of several other uses than that above stated, as shown in the drawings, wherein—

Figure 1 is an elevation of a wheel with my tool in position for tightening the tire. Fig. 2 is an enlarged central longitudinal section of the tool alone. Fig. 3 is a sectional view showing how parts of this tool can be used as a bench-clamp. Fig. 4 is an elevation showing how the tool can be used for stretching a wire. Fig. 5 is an elevation showing how the tool may be used as a lifting-jack.

Referring to the said drawings, the letter T designates a tube having one end closed and beveled, as at B, and provided with a hole H, and within the tube near its other end is an annular shoulder A.

N is a nut having a tubular extension X passing into this end of the tube and resting on the shoulder A, and in the outer face of this extension is a groove G, which is adapted to be engaged by the tips of small set-screws s, which pass through the tube T.

S is a long screw passing through the nut and down the tube T, the screw preferably having an enlargement E in its body, above which is a fork F. The face of this fork, the exterior of the tube, and the face of the bevel may be covered or cushioned with leather L, if desired, for the purpose of preventing the scratching of the wheel W.

In use the bevel is placed upon the hub of the wheel between two spokes and the screw is unscrewed by hand until the fork rests inside the felly, as seen in Fig. 1. A wrench is then applied to the nut, and the same is turned, whereby the screw is further driven out to expand the wheel and tighten the tire. One or

more of the set-screws s are then turned home to prevent the nut from unscrewing, after which washers may be inserted in the sockets at the ends of the spokes to hold the tire in tightened condition. The tool can then be removed in an obvious manner.

In Fig. 3 is illustrated one of the many uses aside from that described to which this invention may also be put. In this case J' J' are the jaws of a bench-clamp. The nut N is suitably mounted in the rear side of the rearmost jaw, and the screw S is passed loosely through an opening O' in the front jaw and takes into said screw, the enlargement striking the face of the front jaw. A handle H', of any suitable construction, is then attached to the fork, and when this handle is turned it is obvious that the jaws will be forced together. A spring S' between the jaws may cause their separation.

In Fig. 4 I have illustrated the manner in which this device can be used for stretching a fence or other wire. In this case a chain 1 has a hook 2, which is inserted in the hole H in the bevel B, the chain being passed around a post 3 or other stationary upright and tied or fastened, whereby the device is anchored. The set-screws s are then turned in, so as to loosely engage the groove G to permit the rotation of the nut, but to prevent its withdrawal from the tube T. The screw S is then run out its full length and connected with the wire to be stretched in any suitable manner, preferably as follows: A double hook 4 passes astride the enlargement and is connected by a chain 5 with a wire-clamp consisting of a body 6, in ears 7 of which is pivoted an eccentric clutch member 8. The wire is engaged between the body and the clutch member, and on applying a wrench to the nut N and turning the same in the proper direction the screw S is drawn in and the wire is stretched or tightened. It can then be stapled or otherwise secured to the post, after which the clamp is removed and the entire device carried to another point for renewed use.

In Fig. 5 is shown the manner in which I use this tool as a jack-screw, and, as will be seen, such manner is practically the same as that shown in Fig. 1. A block or stone Q is, however, in this case preferably placed be-

neath the bevel on the ground or other support, and another similar block is placed above the fork, if desired, to keep these small members from embedding the ground and the object raised.

From the above description it will be seen that this improved tool is capable of a great variety of uses, a few of which I have indicated, and by slight additions it may be made to exert powerful expansive or contractile force and can be locked at any point desired. I have not illustrated the wrench, as such may be of the ordinary construction; but, if preferred, a special wrench may be used, which could be removable from or even rigidly secured to the nut, and these, as well as many other slight changes in the details of construction, might be made without departing from the spirit of my invention.

I do not limit myself to the exact shapes and sizes of parts, nor to any special materials; but the complete tool preferably weighs from four to six pounds, and is of wrought-iron, malleable castings, or drop-forging suit-

ably ornamented, if desired, by painting or otherwise.

What is claimed as new is—

The combination of a tubular member having one end beveled and provided with a transverse hole and provided at its other end with an interiorly-arranged annular shoulder, a set-screw passing through the tubular member and arranged near the shoulder, a nut resting on the tubular member and provided with an extension projecting into the same and bearing on the shoulder and provided with an annular groove receiving the set-screw, and a screw passing through the nut into the tubular member and having an enlargement near its outer end and provided with a fork, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WILLIAM HENRY HAMBLIN.

Witnesses:

W. D. ADAIR,
HOMEL MAYES.