(No Model.)

J. G. SARTER.

TIRE TIGHTENER.

No. 587,238. Patented July 27, 1897.

Fig. 1.

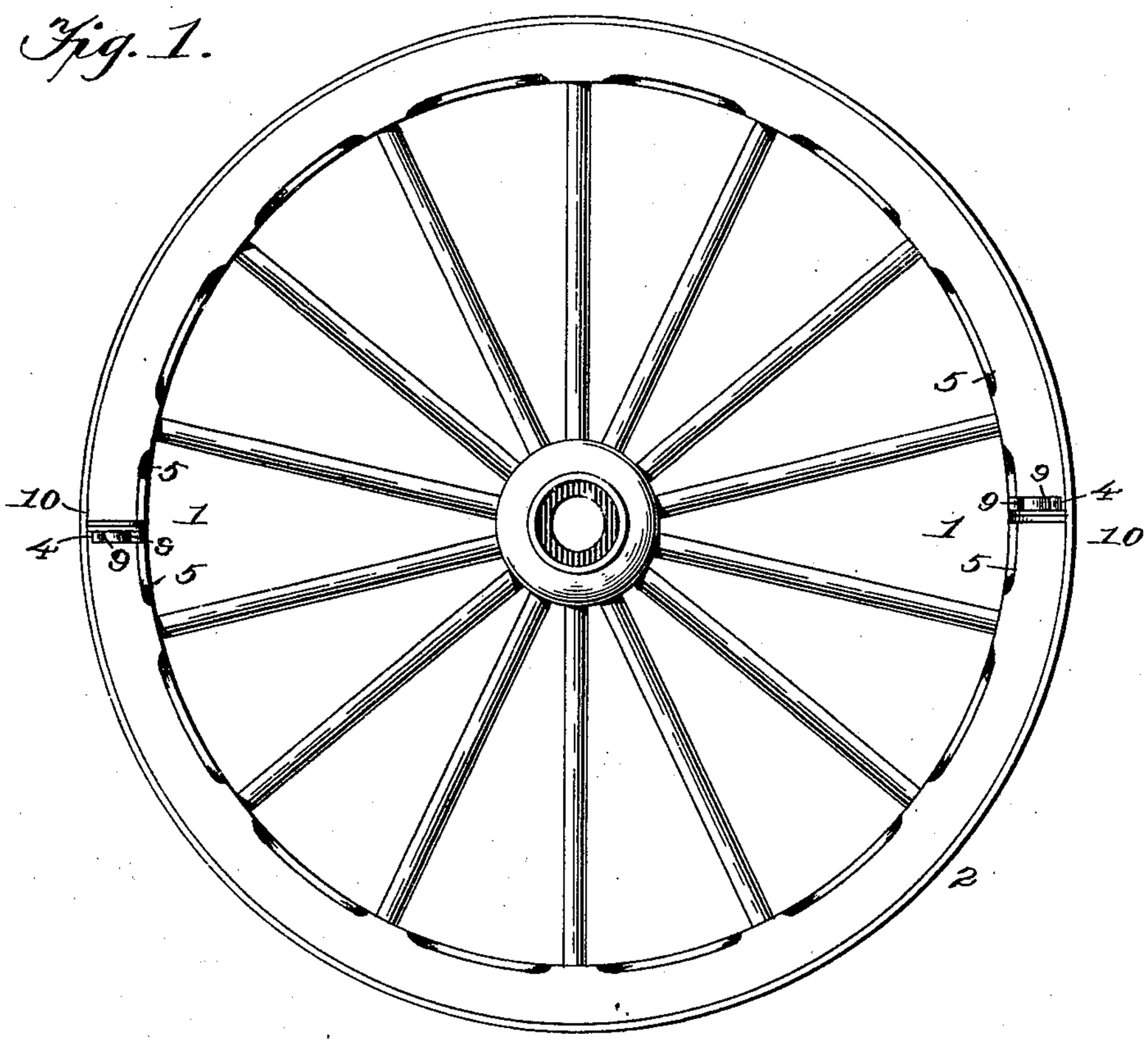


Fig. 2.

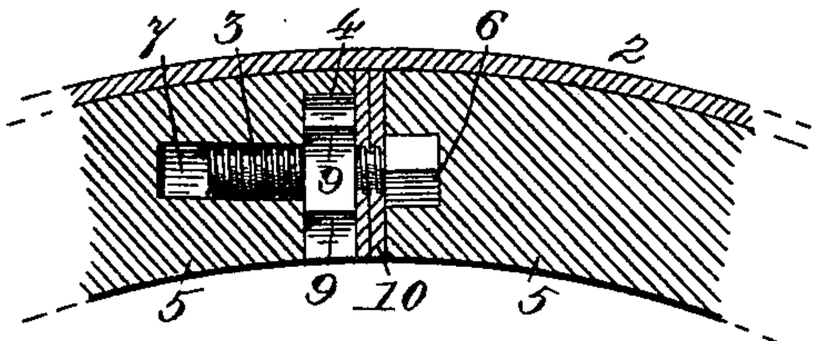
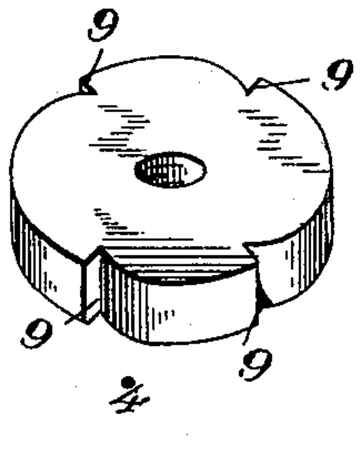


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN G. SARTER, OF FORT LOGAN, MONTANA.

TIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 587,238, dated July 27, 1897.

Application filed July 24, 1896. Serial No. 600,422. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. SARTER, a citizen of the United States, residing at Fort Logan, in the county of Meagher and State of Montana, have invented a new and useful Tire-Tightener, of which the following is a specification.

The invention relates to improvements in tire-tighteners.

The object of the present invention is to improve the construction of tire-tighteners and to provide a simple, inexpensive, and efficient device adapted to be readily applied to a vehicle-wheel and capable of enabling the parts of a wheel to be readily adjusted to tighten them in dry weather when wood shrinks and to permit the fellies to expand in wet or damp weather when wood swells to prevent the wheel from becoming dished.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a side elevation of a wheel provided with tire-tighteners constructed in accordance with this invention. Fig. 2 is an enlarged detail sectional view of a portion of the wheel, illustrating the construction of one of the tire-tighteners. Fig. 3 is a detail view of the adjusting-nut.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 1 designate tire-tighteners designed to be located at diametrically opposite points on a wheel 2 and comprising a screw 3 and an adjusting-nut 4. Each tire-tightener is located between the adjacent fellies 5 and is adapted to expand the same to take up the slack occasioned by the shrinkage of the woodwork in dry weather and capable of permitting the parts to expand during damp or wet weather when wood swells and thereby prevent a wheel from falling to pieces and from becoming dished.

The screw 3 is provided with a polygonal head 6, which is preferably rectangular, and which is firmly seated in a corresponding recess in the adjacent end of one of the fellies 5, whereby the screw is held perfectly rigid. The upper portion of the screw extends in a smooth socket or opening 7 of the opposite felly, which is recessed for the reception of the nut 4, and the latter is provided with a series of peripheral notches or recesses 9, adapted to be engaged by a punch or other suitable tool whereby the nut is rotated. By rotating the nut the fellies are forced apart to tighten the tire, and the latter may be readily tightened to any desired extent without employing a blacksmith or other skilled workman.

The spaces between the adjacent ends of the fellies are preferably filled by washers 10, of leather or other suitable material, inserted in the spaces after the tire-tighteners have been adjusted, and in adjusting the washers the nuts are preferably screwed up to a greater degree than is necessary or desirable in order that they may be turned backward sufficiently to clamp the washers 10 and hold them in position. The screws of the tire-tighteners are disposed longitudinally of the fellies, and, as illustrated in Fig. 1 of the accompanying drawings, they are preferably reversely arranged, so that each felly will receive the head of one adjusting-screw and the threaded portion of the other adjusting-screw.

It will be seen that the tire-tighteners are exceedingly simple and inexpensive in construction, that they will enable the parts of a wheel to be readily adjusted to tighten the same to prevent the wheel from falling to pieces in dry weather, and to permit the fellies to expand during damp weather when wood swells, and thereby avoid dishing the wheel.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

What I claim is—

In a tire-tightener, the combination with a tire, and felly-sections, one of the felly-sections being provided with a smooth bore or opening and the other section having a polygonal socket, a stationary screw fitting in the bore or opening and provided with a polygonal head arranged in the said socket, whereby the screw is fixed to the adjacent felly-section, an adjusting-nut arranged to

rotate on the screw, engaging the felly-section having the smooth bore or opening and provided with a series of peripheral recesses or notches adapted to receive a tool for rotating the nut, and a washer interposed between the nut and the other felly-section, 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.

JOHN G. SARTER.

Witnesses:

JOHN E. O'HARA,

JOHN LYNCH.