

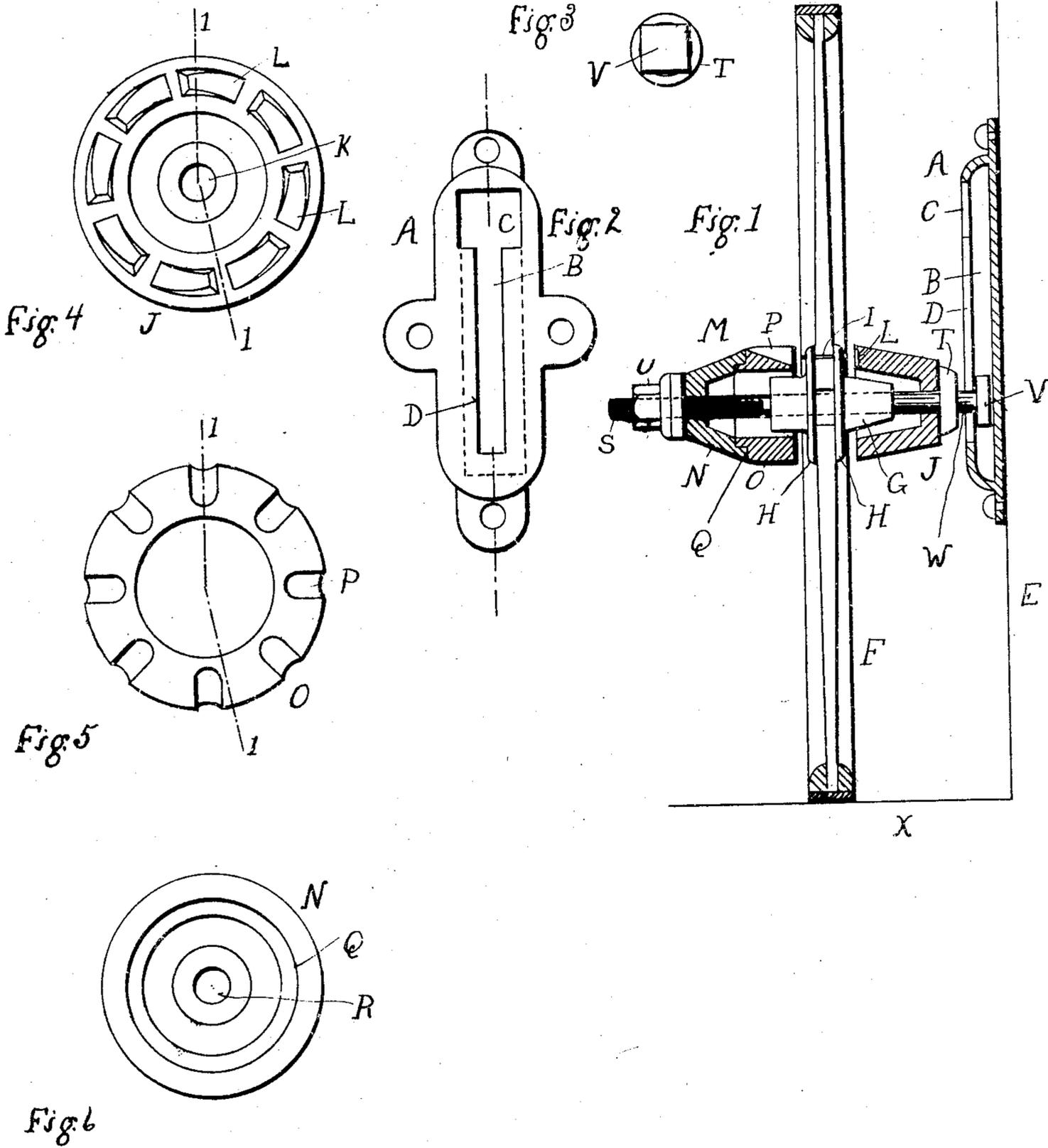
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PATENTED MAR. 3, 1908.

H. E. WITHERED.

APPLIANCE FOR COMPRESSING SARVEN WHEEL HUBS, &c.

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UNITED STATES PATENT OFFICE.

HENRY E. WITHERED, OF LE ROY, KANSAS.

APPLIANCE FOR COMPRESSING SARVEN-WHEEL HUBS, &c.

No. 881,091.

Specification of Letters Patent.

Patented March 3, 1908.

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To all whom it may concern:

Be it known that I, HENRY E. WITHERED, a citizen of the United States, and resident of Le Roy, in the county of Coffey and State of Kansas, have invented a new and useful Improvement in Adjustable Sarven-Wheel Compressors for Tightening Sarven-Wheel Hubs, of which the following is a specification.

My invention relates to clamps or compressors for holding the iron sides or flanges of Sarven wheel hubs and the rivets therein firmly together and against the spokes while the rivets are being tightened and the hub repaired or filled.

The object of my invention is to provide a device comprising a powerful draw-bolt passing through the hub and means whereby pressure sufficient to spring the iron flanges firmly against the spokes from both sides and at the same time, may be applied by simple operation; also to direct such pressure upon the rivet heads and the surrounding flange by the use of thimbles and the like, so that the flanges may be firmly clamped against the spokes while the rivet ends are clenched; also to provide in such a device a means which is adjustable as to pressure; also to provide in such a device a means which may be made interchangeable so that the device may be applied to different kinds of wheel-hubs, and to hubs of different sizes, and to rivets and rivet-heads of various forms and sizes; also to provide such a device which may be so applied that the workman may have access to the rivet ends while it is applied to the hub and properly compressed, to clench the rivet-ends; also to provide in such a device a suitable means for holding the hub and wheel in a suitable position while the device is applied and the workman clenches the rivet-ends; also to provide the several mechanisms hereinafter more fully described and claimed.

To attain these objects, my invention consists of a pair of clamping members adapted to engage the respective hub-flanges and the rivet-heads with a suitable means for drawing said clamping members together so as to compress said flanges against the spokes while the workman clenches the rivet-ends; and it further consists of the parts, improvements, and combinations herein set forth and claimed.

In the drawings accompanying and forming part of this specification, and in the de-

scription thereof, I have shown my invention in its preferred form, and have shown what I deem to be the best mode of applying the principles thereof; but it is to be understood that the invention itself is not to be confined to the exact drawings or the description of said drawings; and that I contemplate changes in form, proportion, and materials, and the transposition of parts, and the substitution of equivalent members, without departing from the spirit of the invention.

Figure 1 is a sectional view of a device made in accordance with the principles of my invention applied to a Sarven wheel-hub and ready to compress the hub-flanges by the tightening of the draw-bolt. Fig. 2 is a face view of the grip-slot which may be attached to the wall or other suitable and properly stable frame-work for firmly holding the device and the wheel in upright position while the workman is engaged in clenching the rivet-ends. Fig. 3 is an end view of the draw-bolt showing the head and the knob. Figs. 4 and 5 are face views of the opposing clamping members, respectively. And Fig. 6 is a face view of the separable follower of the clamping member for the rivet-end side of the hub.

Similar reference characters indicate like or corresponding parts throughout the several views.

A is a plate adapted to be secured to the wall, or stud, and provided with a channel B, a slot D, and an opening C for the insertion of the knob.

E may represent the wall or stud or other suitable frame, and X may represent the shop floor.

F may represent a Sarven wheel and G the hub whereof, H, H being the hub-flanges and I representing one of the rivets by which said flanges are clamped against the spokes.

J is a thimble adapted to the rivet-head flange, provided with a centrally-disposed hole K, and a series of recesses L, L in its clamping face corresponding to the rivet-heads and whose bottoms are inclined, all in the same direction, so that by twisting the thimble one way or the other the thimble may be made to fit firmly over the various thicknesses of rivet-heads and at the same time bear properly against the surrounding flange.

M is the oppositely disposed clamping member or thimble, consisting preferably of

two parts, namely, a follower N and a die or bit O provided with openings P, P corresponding to the rivet-ends so as to give access thereto while the compressor is applied for the purpose of clenching the rivet-ends. The parts N and O are held together by means of annular corresponding shoulders Q; and part N has a centrally-disposed hole R.

S is a draw-bolt of suitable length, thickness and strength to do the compressing herein referred to, and provided with a head T and a nut U to engage behind the respective thimbles or clamping members, and whereby said clamping members are properly forced against said flanges and rivet-heads to compress the same while the workman clenches the rivet-ends. The bolt may be extended beyond the head in the form of a neck W with a squared knob V, which fit into the slot D and channel B, insertion therein being permitted through the opening at the top C. The grip-slot being vertically disposed and of some length is thus adaptable for any size of wheel, and it also affords a simple and efficient means of holding the wheel in place while the workman is clenching the rivet-ends.

Obviously by the use of my invention, it is a simple operation to clamp and compress the hub-flanges and clench the rivets, the compressed flanges are made perfectly true and regular and uniform, the same thimble may be applied to various thicknesses of rivet-heads, the degree of compression may be regulated at the will of the workman, while interchangeable dies or thimbles may be provided so as to adapt the apparatus to the various kinds and sizes of wheels and hubs.

What I claim is:

1. In a device of the kind described, the combination of a draw-bolt and a pair of oppositely disposed clamping members to

engage the respective hub flanges, one of said members adapted to engage the rivet heads and the other having openings to give access to the rivet ends.

2. In a device of the kind described, the combination of a draw-bolt adapted to pass through the opening through a hub and a pair of oppositely disposed thimble-like clamping members, one of said members being adapted to engage one hub flange and the rivet heads and having recesses with inclined bottoms to correspond to the rivets and to be adjustable to various thicknesses of rivet heads, and the other member being adapted to engage the other hub flange and having openings corresponding to the rivets to give access to the rivet ends.

3. A device of the kind described comprising the combination of a suitable support, a channeled plate mounted thereon with a slotted opening, a draw-bolt having a knob fitting non-rotatably in said channel through said slotted opening, a thimble-like clamping member removably secured to one end of the draw-bolt and adapted to embrace the hub flange and the rivet heads and having recesses with inclined bottoms corresponding to the rivets and adjustable to various thicknesses of rivet heads, another and oppositely disposed thimble-like clamping member removably secured to the other end of the draw-bolt and adapted to embrace the other hub flange and having openings corresponding to, and to give access to, the rivet ends, said second-mentioned clamping member consisting of a main portion and a separable die.

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

HENRY E. WITHERED.

Witnesses:

C. S. FINNEY,
LON V. WATSON.