

(No Model.)

G. G. F. BOSWELL.
DOUBLETREE.

No. 567,939.

Patented Sept. 15, 1896.

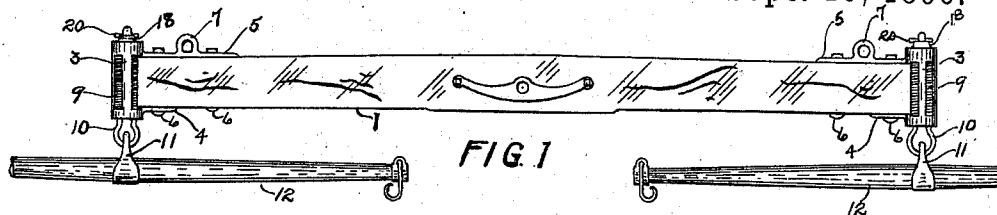


FIG. 2.

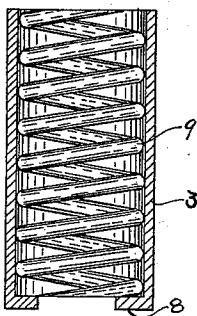


FIG. 3.

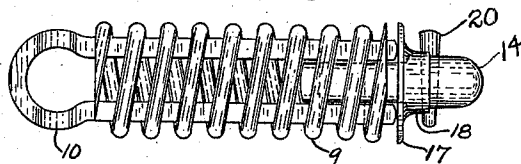


FIG. 5.

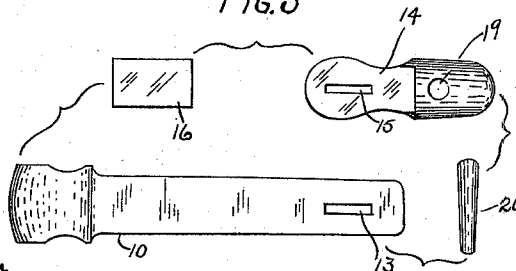


FIG. 4.

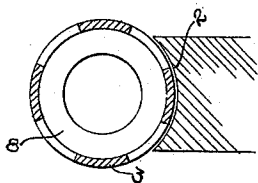
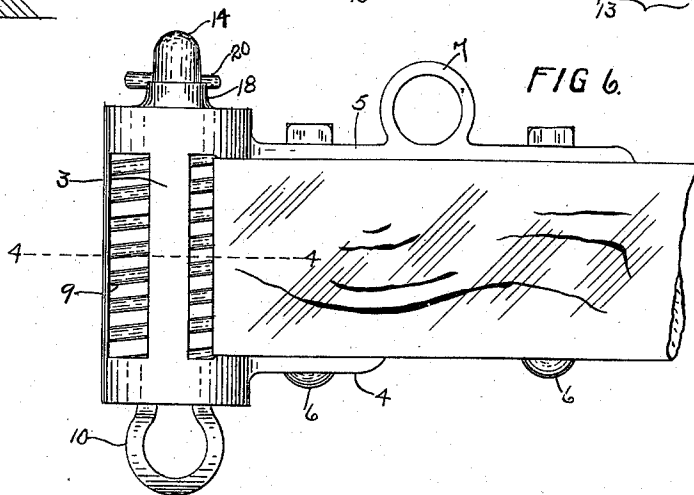


FIG. 6.



WITNESSES:
Horace B. Jones.
Zula Green

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BY
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UNITED STATES PATENT OFFICE.

GEORGE G. F. BOSWELL, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF TO JOHN FREIBERG AND HENRY TECHINTIN, OF SAME PLACE.

DOUBLETREE.

SPECIFICATION forming part of Letters Patent No. 567,939, dated September 15, 1896.

Application filed April 22, 1896. Serial No. 588,688. (No model.)

To all whom it may concern:

Be it known that I, GEORGE G. F. BOSWELL, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Improvement in Doubletrees; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like figures refer to like parts.

My invention relates to a doubletree wherein there is a spring connection between the doubletree and the singletrees.

The full nature of my invention will appear from the accompanying drawings and the description and claims following.

In the drawings, Figure 1 represents a plan view of the doubletree with one end of each singletree broken away. Fig. 2 is a central longitudinal section of the casing and spring at the end of the doubletree. Fig. 3 is a plan view of the contents of the casing, that is, of the spring with the singletree-clevis secured within it. Fig. 4 is a section on the line 4 4 of Fig. 6. Fig. 5 is a detail of a group of the parts. Fig. 6 is a plan, on an enlarged scale, of one end of the doubletree.

I take a suitable doubletree 1 and cut a grooved seat 2 out of each end to receive the casing 3, which is a skeleton of a cylinder, so that it will not collect any dirt. Integral with this casing is an extension 4 on the front side of the doubletree and a longer extension 5 on the rear side. These extensions 4 and 5 are secured to the doubletree by the bolts 6, that extend through the doubletree. Cast integral with the rear extension 5 is an eye 7 for the stay-chain. It is thus seen that the casting of the casing 3 and the extensions 4 and 5 and the stay-chain eye all in one piece gives me a simple and an especially strong construction. The casing 3 is entirely open at its rear end, as seen in Fig. 2, but at its front end it is provided with an annular collar or flange 8. Within the casing I first slip, through the rear end of the opening, a powerful spiral spring 9, having, preferably, flattened ends, as shown. One end of this spring abuts squarely against the collar or flange 8. I then provide a singletree-clevis 10, formed as seen in Figs. 3 and 5, and slip into it the

clip 11 of the singletree 12. (Seen in Fig. 1.) The ends of the clevis are provided with slots 13. Between the ends of the clevis I extend the strong solid plug 14 until the slot 15 in said plug registers with the slots 13 in the clevis. I then pass the flat key 16 through the slots 13 and 15, keying the plug 14 and the clevis together. Then I slip them through the wire 9 after it is in place in the casing, so that they assume the position shown in Fig. 3. The spring 9 should be, preferably, of the same length as the shank of the clevis, so that the ends of the latter will not extend beyond the ends of the spring appreciably. The width of the plug 14, that is inserted between the ends of the clevis, should be sufficiently great that it will crowd the ends of the clevis snugly against the spring and that there will be but slight play between the clevis and the spring; also, the length of the key 16 should be substantially the same as the diameter of the spring. I then slip over the outer end of the plug 14, which is made, preferably, round, the strong disk or washer 17, having on it the hub 18, that has oppositely disposed notches. The outer end of the plug 14 is provided with the hole 19, and I then extend the pin 20 through such hole, so that it fits in the notches of the hub 18 of the disk 17. The pin 20 should be driven in tightly or made of such form that it cannot escape. It, as well as the disk 17, the key 16, and the other parts, should be made sufficiently strong to resist any desired pull. It is seen from this description that I am enabled to do away with lap rings or hooks for the connection of the singletrees to the doubletree. The singletrees, as I have them attached, cannot escape. Furthermore, they are closely and directly connected up with the doubletree, as seen in Fig. 1. It is also observed that the clevis is held in place by its attachment to the plug 14 by means of the key, which cannot escape by any possible means, as the spring will keep it in place. By reason of this arrangement I am enabled to dispense with a nut or similar device for the purpose of holding the clevis in place. By utilizing the plug 14 I am enabled to have a much stronger disk and hub than if the same sur-

rounded the clevis or screwed onto it. The whole has been thoroughly tested, and found to be strong, permanent, simple, and cheap.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination with a doubletree, a casing secured thereto, and a spiral spring mounted in such casing, of a singletree-clevis extending through said spring and having a slot in its ends, a plug fitting between the ends of the clevis with a slot through its end, a key through the slots in the ends of the clevis and plug, and means on the plug to prevent it being drawn through the spring.

2. The combination of a doubletree, a casing secured thereto, a spiral spring mounted in said casing, a singletree-clevis extending through said spring and having a slot in its ends, a plug fitting between the ends of the clevis with a slot in such end and a hole in its other end, a flat key extending through the slots in the ends of the clevis and the plug,

a disk mounted on the plug to prevent it being drawn through the spring, and a pin extending through the hole in the plug to hold the disk in place.

3. The combination with a doubletree with its end provided with a grooved seat, of a casting comprising a casing or frame to fit in such grooved seat, an integral extension along the front face of the doubletree, another extension integral with such casing along the rear face of the doubletree, and a stay-chain eye integral with such rear extension, bolts extending through the doubletree, and suitable spring connection for the singletree mounted in said casing.

In witness whereof I have hereunto set my hand this 13th day of April, 1896.

GEORGE G. F. BOSWELL.

Witnesses:

V. H. LOCKWOOD,
ZULA GREEN.