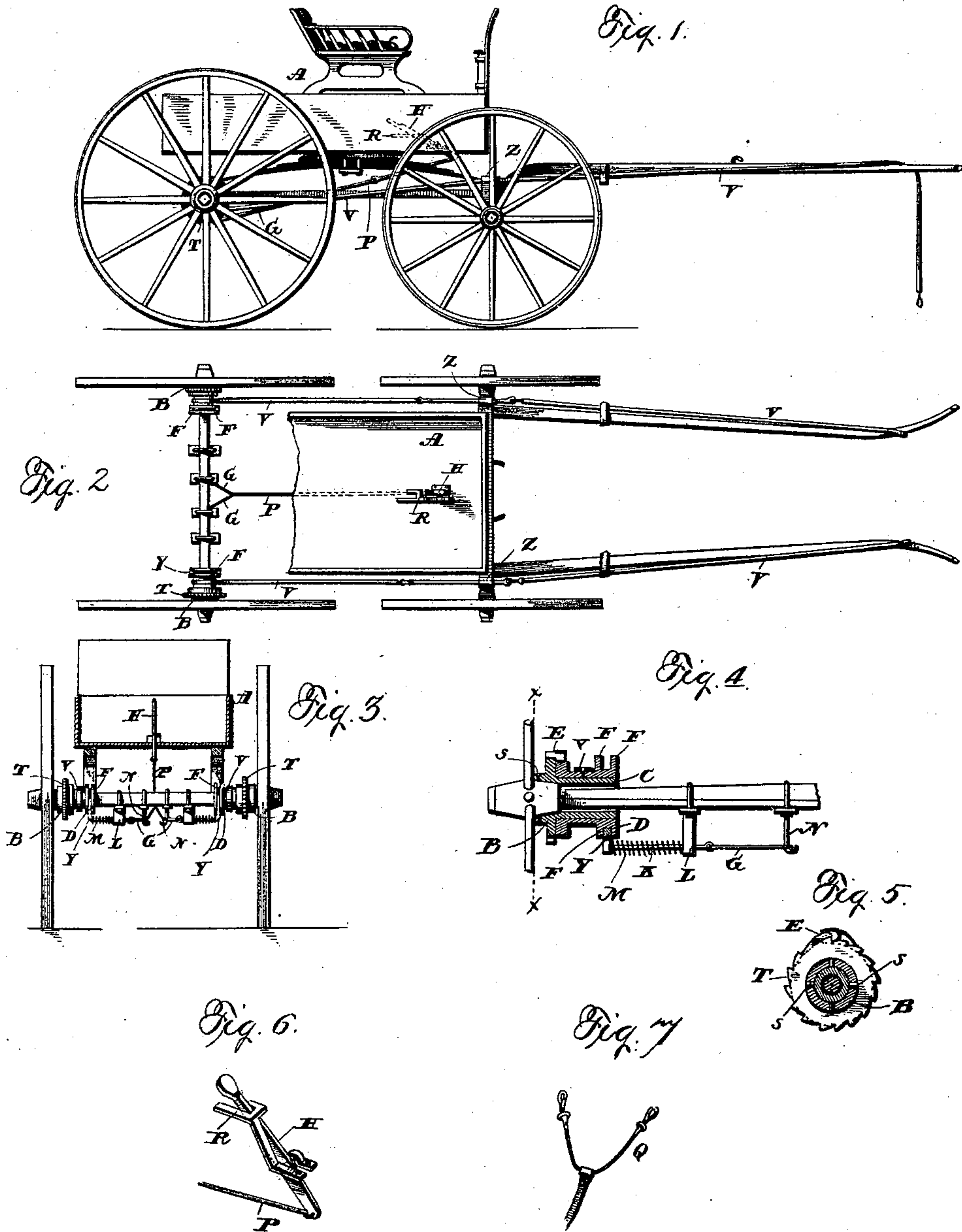


(No Model.)

F. S. G. BONNEAU.
HITCHING DEVICE.

No. 455,031.

Patented June 30, 1891.



Witnesses

Chas. Williamson.
Jas. Hutchinson.

Inventor

Frank S. G. Bonneau,
By his Attorney
Louis W. Southgate

UNITED STATES PATENT OFFICE.

FRANK S. G. BONNEAU, OF WORCESTER, MASSACHUSETTS.

HITCHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 455,031, dated June 30, 1891.

Application filed January 12, 1891. Serial No. 377,549. (No model.)

To all whom it may concern:

Be it known that I, FRANK S. G. BONNEAU, a subject of the Queen of Great Britain, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Hitching Devices, of which the following is a specification.

The aim of this invention is to produce a hitching device so arranged that the horses or horse may be fastened from the wagon or carriage, and one so arranged that if the horse starts he will be reigned up and prevented from running away.

To this end the invention consists of the device described in this specification and illustrated in the accompanying drawings.

Referring to the said drawings, Figure 1 is a side elevation of a wagon with my device applied thereto. Fig. 2 is a plan of the same, the rear part of the wagon being broken away to show the arrangement on the rear axle. Fig. 3 is a rear elevation of the wagon, the body being in section to show the mechanism in the wagon. Fig. 4 is a section of one of the clutch mechanisms. Fig. 5 is a section on line $x\ x$, Fig. 4. Fig. 6 is a perspective view of the mechanism in the wagon. Fig. 7 represents a modification.

In detail, A represents a wagon or carriage of any approved pattern. On the hubs of one or more of the wheels, preferably the rear ones, are slipped the bushings B. These bushings B are rigidly held to the hubs of the wheels by the small set-screws $s\ s$ in the hub of the bushing, as shown. The periphery of each bushing has the ratchet-teeth T, as shown in Fig. 5. This bushing B has an inwardly-projecting sleeve C, which is turned on the outside, and loosely sliding on the same is the clutch D. This clutch D has the spring-pawl E, adapted to engage the teeth T on the bushing B. A yoke Y is sprung in place between two shoulders or collars F F on the clutch D, and the same connects by the flexible band or strap G to the operating-lever H.

Between the yoke Y and the strap G is the small rod K, which slides in a bearing L, bolted to the axle, and between this bearing L and the clutch D is a spring M, so arranged that the pressure of the same at all times tends to

throw the clutch D toward the bushing B, so that the pawl E will engage the teeth T. The straps G pass around hooks N, bolted to the axle and are both fastened to a single band P, which is fastened to the lever H. This lever H is held in its depressed position by a suitable catch R, as shown in Fig. 6.

Attached to the clutches D are the straps V. These straps V pass through suitable guides Z on the front axle, and the straps have suitable catches on the ends of the same, so that they may hook into the bit of the horse.

The operation of the device is as follows: While the wagon is in motion the lever H is held in the position shown in Fig. 6; but when it is desired to hitch the horse the catch R is moved sidewise, and thus the lever H released. The springs M now throw the clutches D up to the bushings B, and the pawls E engage the teeth T. If now the horse should start, clutches D will wind up the straps V, and thus stop the horse. The pawls E allow the team to be backed while the clutches are in the position last named. Of course the lever H and catch R may be greatly varied in form and may be located at any convenient point outside of the wagon as well as on the inside. On heavier teams than that shown a single clutch mechanism only is used and but one strap V, and on the end of the same is the double catch Q, so as to catch the horse on both sides of the bit. Of course it is understood that the straps may be arranged so as to engage the bits of a pair of horses. Modifications of my device, as shown, may be made by a skilled mechanic without departing from the scope of my invention.

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

1. A hitching device consisting of a bushing having ratchet-teeth on its periphery, a clutch sliding on said bushing, said clutch having the spring-pawl adapted to engage the teeth on the bushing, a strap fastened to said bushing, and the clutch-operating mechanism, substantially as described.

2. A hitching device consisting of a bushing having ratchet-teeth held on one of the wagon-wheel hubs, the clutch sliding on the same and adapted to engage said teeth, the strap fastened to said clutch, the yoke span-

ning the clutch, the strap connected to the yoke, the operating-lever, to which said strap is also fastened, and the spring-catch R, adapted to hold the lever only in that position where the clutch is free from the bushing, substantially as described.

3. The hitching device consisting of the two bushings B, held on the wheel-hubs, the clutches D, sliding thereon, each clutch having the spring-pawl E, the yokes Y, spanning said clutches D, the pieces K, operating the same, the springs M, tending at all times to

throw the clutches into operating position, the straps G and P, connecting the yokes to the operating-lever, the operating-lever and its catch, and the straps V, wound on the clutches, substantially as described. 15

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

FRANK S. G. BONNEAU.

Witnesses:

LOUIS W. SOUTHGATE,
HERBERT MCINTOSH.