

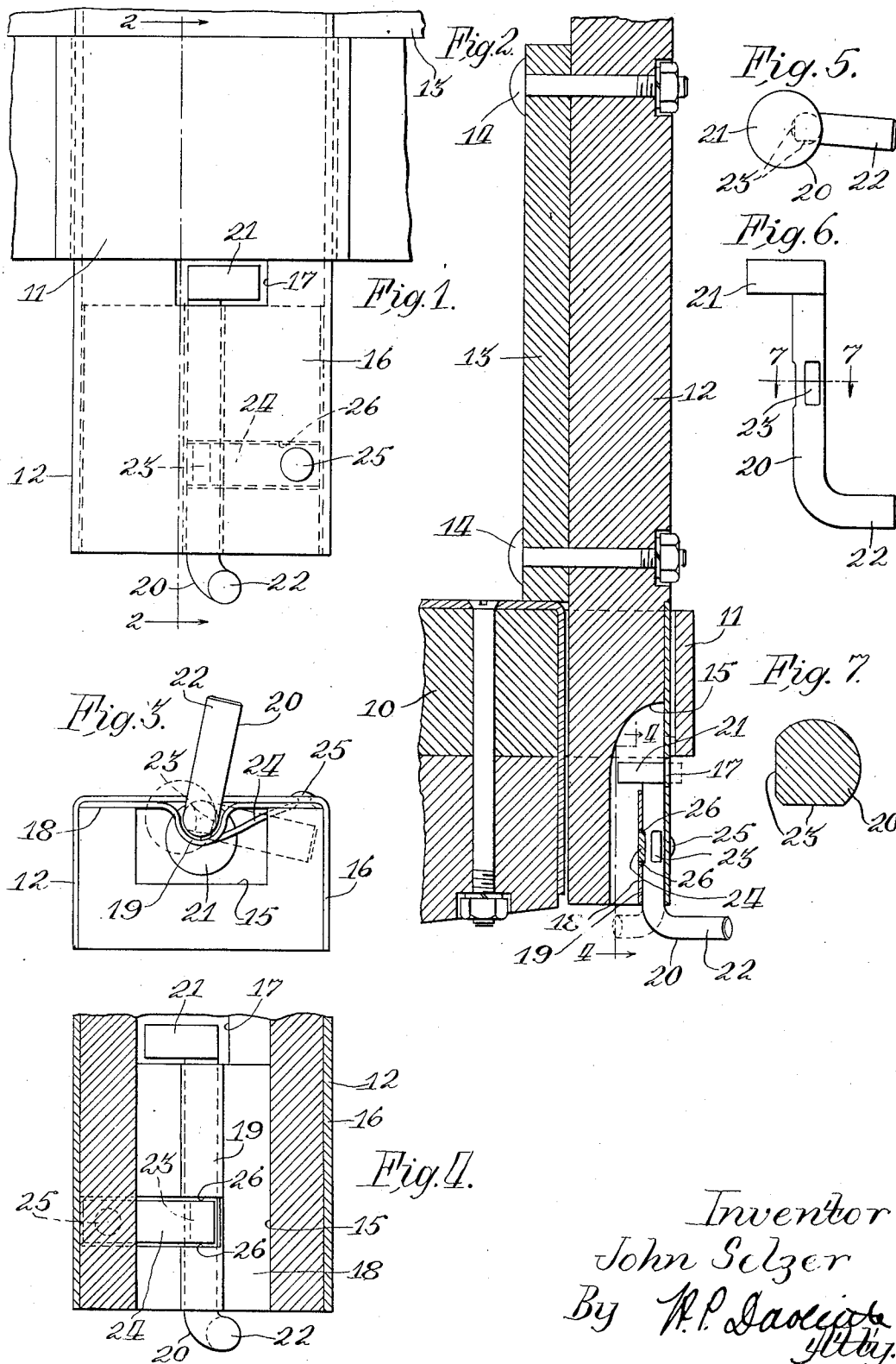
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STAKE BODY LOCK

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STAKE BODY LOCK

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7 Claims. (Cl. 296—43)

My invention relates to an improved stake body lock.

The object of the invention is to provide an improved locking device for the stakes used to confine the load on the body of a motor truck or the like and to keep them from jumping accidentally out of place.

Another object is to provide such a lock which will permit quick removal or quick placing of the stakes relative to the sockets on the truck, which receive them.

Other objects will be apparent to those skilled in the art as the disclosure progresses.

These desirable objects may be achieved by the illustrative example of the invention herein selected for purposes of disclosure.

In the drawing:

Figure 1 is a side elevational view of a stake locked in its body socket;

Figure 2 is a vertical sectional view as seen along the line 2—2 of Figure 1 when looking in the direction of the arrows;

Figure 3 is a bottom view of the lock means shown in Figure 2;

Figure 4 is a vertical sectional view through the lock means, as seen along the section line 4—4 when looking in the direction of the arrows appearing in Figure 2;

Figure 5 is a top plan view of the latch member per se;

Figure 6 is a side view of this latch member; and,

Figure 7 is a cross sectional view through this latch member, as seen along the line 7—7, looking in the direction of the arrows appearing in Figure 6.

A truck body main or side member is indicated at 10, said member carrying a side plate 11 spaced laterally from the member 10 to provide a space to serve as a socket for receiving a vertically disposed stake 12. These stakes may be arranged in groups of any desired number of stakes per group, which will be spaced apart a desired distance and connected together by a plate 13, which will be secured by bolts 14 to the stakes to connect the same in group formation. Thus, it is possible to remove or place a group of stakes in the form of a gate.

The problem is to provide an improved latching mechanism for removably connecting the lower ends of the stakes, or certain of them, in their sockets and, accordingly, the lower, outer face of each stake, as best shown in Figure 2, is relieved to form a pocket, as appears at 15, the outer face of said stake carrying a closure

plate 16, which plate is provided with an opening 17 in its outer face. This plate 16 is channel-shaped, as shown in Figure 3, to embrace three sides of the stake, and, fitted into this channel-shaped cover plate 16 from its back side, is a strap 18 having a bulged part 19 to form a bearing for carrying a vertically disposed latch bolt or member 20, which may be of rod formation. Thus the latch bolt is journaled for rotation, but is held against independent sliding movement relative to the stake. This member 20 at its top end carries an integrally formed eccentric or stop abutment 21, and, at its lower end, carries an integrally formed, angular extension 22 forming a handle. It will be noted that the eccentric and handle extension extend in substantially opposite directions. Midway between its ends the latch bolt 20 is formed with two flat sides 23, as appears best in Figures 6 and 7, and, cooperating with these flat sides, is a leaf spring 24 having its free end riveted at 25 to the closure plate 16. This flat spring engages the flat sides 23 of the bolt to prevent accidental rotation thereof and also up and down movement, because the bearing portion 19 is cut out at 23 to present upper and lower shoulders 26 to confine the spring 24 where it acts on the flat sides 23 of the latch bolt 20. Further, this action of the spring 24 in preventing up and down movement of the bolt 20 insures that the eccentric 21 will be in position to register with the opening 19 in the face of the cover plate 16.

In use, the stake 12 can be placed into its socket by rotating the handle 22 to fit inwardly beneath the lower end of the stake, as shown in the dotted line position in Figure 2. The stake 12 will then drop into its socket until the oppositely extending eccentric 21 strikes the top of the plate 11. In this position of the parts the handle 22 is disposed beneath the lower edge of the plate 11 and clear thereof, so that the operator may turn the handle 22 outwardly to the full line position shown in Figure 2. The stake is now free to drop, because the eccentric 21 is inside the pocket 15, until the plate 13 abuts the member 10 to stop this falling movement. In the final position of the parts, the operator then rotates the bolt 20 by turning the handle 22 back again to its inward position shown in Figure 2 in the dotted lines beneath the stake, which causes the eccentric 21 to turn and pass through the opening 17 in the cover plate 16. It is now impossible for the stake to move upwardly and jump out accidentally from its

socket because the eccentric 21 will abut the lower edge of the plate 11, as indicated in the dotted line showing in Figure 2. The flat spring 24 engaging the flat sides 23 on the bolt 20 assures that the bolt cannot accidentally turn or slip endwise of its length because of the pressure of the spring thereon, which serves as a yielding lock for the bolt 20 in its bearing 19.

From this description it must now be apparent that a simple and effective lock means has been provided for a removable stake and that the structure achieves all of the desirable objects heretofore recited for the invention.

It is the intention to cover all such immaterial variations of the form herein chosen for purposes of illustration as do not depart from the spirit and scope of my invention as indicated by the following claims.

What is claimed is:

1. A stake lock for a truck or the like having a main body member and a plate spaced therefrom to form a stake receiving socket, a vertically disposed stake to fit the socket, said stake having its lower end relieved to form a pocket open at its bottom end, a closure element embracing the pocket, a latch bolt rotatably journaled on the closure element within the pocket and held against sliding movement, said bolt having an eccentric formed at one end and an angular handle extension at the other end, the handle being located below the bottom end of the pocket, said closure element being provided with an opening to receive the eccentric which projects therethrough so that it may cooperate with the plate to prevent accidental displacement of the stake from its socket, and a flat spring engaging the bolt to prevent its accidental rotation.

2. A stake lock for a truck or the like having a main body member and a plate spaced therefrom to form a stake receiving socket, a vertically disposed stake to fit the socket, said stake having its lower end relieved to form a pocket open at its bottom end, a closure element embracing the pocket, a latch bolt rotatably journaled on the closure element within the pocket and held against sliding movement, said bolt being arranged vertically in the pocket and having an eccentric formed at its upper end and an angular handle extension at its lower end below the bottom end of the stake pocket, said closure element being provided with an opening to receive the eccentric which projects therethrough so that it may cooperate with the plate to prevent accidental displacement of the stake from its socket, and means yieldingly engaging the bolt to prevent its accidental rotation.

3. A stake lock for a truck or the like having a main body member and a plate spaced therefrom to form a stake receiving socket, a vertically disposed stake to fit the socket, said stake having its lower end relieved to form a pocket open at its bottom end, a channel shaped closure element embracing the stake and covering the pocket, a vertically arranged latch bolt rotatably journaled on the closure element within the pocket, said bolt having an eccentric formed at one end and an angular handle extension at the other end, said closure element being provided with an opening to receive the eccentric which

projects therethrough so that it may cooperate with the plate to prevent accidental displacement of the stake from its socket, and means engaging the bolt to prevent its accidental rotation.

4. A stake lock for a truck or the like having a main body member and a plate spaced therefrom to form a stake receiving socket, a stake to fit the socket, said stake having its lower end relieved to form a pocket, a closure element covering the pocket, a latch bolt rotatably carried by the closure element and held against sliding movement, said bolt having an eccentric integrally formed at one end and an angular handle extension integrally formed at the other end, said closure element being provided with an opening to receive the eccentric which projects therethrough so that it may cooperate with the plate to prevent accidental displacement of the stake from its socket, and a flat spring engaging the bolt to prevent its accidental rotation.

5. A stake lock for a truck or the like having a main body member and a plate spaced therefrom to form a stake receiving socket, a stake to fit the socket, said stake having its lower end relieved to form a pocket, a closure element covering the pocket, a latch bolt rotatably journaled on the closure element, said bolt disposed vertically in the pocket and having an eccentric formed at its upper end and an angular handle extension at its lower end, said closure element being provided with an opening to receive the eccentric which projects therethrough so that it may cooperate with the plate to prevent accidental displacement of the stake from its socket, and a flat spring engaging flattened surfaces formed on the bolt to prevent its accidental rotation.

6. A stake lock for a truck or the like having a main body member and a plate spaced therefrom to form a stake receiving socket, a stake to fit the socket, said stake having its lower end relieved to form a pocket, a closure plate for the pocket, a vertically arranged bolt rotatably journaled on the closure plate within the pocket, said closure plate provided with an opening, an eccentric and a handle extension on the bolt, said eccentric and extension extending in substantially opposite directions, said eccentric adapted to pass through the closure plate opening to cooperate with the socket plate to prevent displacement of the stake.

7. A stake lock for a truck or the like having a main body member and a plate spaced therefrom to form a stake receiving socket, a stake to fit the socket, said stake having its lower end relieved to form a pocket, a closure plate for the pocket, a vertically arranged bolt rotatably journaled on the closure plate within the pocket, said closure plate provided with an opening, an eccentric and a handle extension integrally formed on the bolt, said eccentric and extension extending in substantially opposite directions, said eccentric adapted to pass through the closure plate opening to cooperate with the socket plate to prevent displacement of the stake, while the extension is disposed below the stake and serves as a handle to rotate the bolt.

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