

[54] **STAKE POCKET TIE DOWN INSERT**

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[22] Filed: **Apr. 3, 1972**

[21] Appl. No.: **243,621**

[52] U.S. Cl. **248/361 R**

[51] Int. Cl. **B65d 19/38**

[58] Field of Search 248/361 R, 25, 119 R;
280/179 A; 105/369 A

[56] **References Cited**

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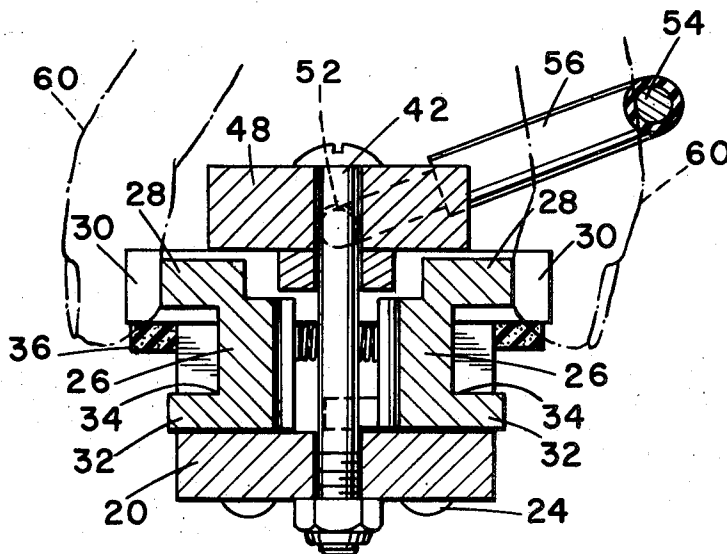
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[57] **ABSTRACT**

A tie down insert, for use in stake pockets of trucks generally and particularly in stake pockets conventionally provided in the tops of the side walls of the load boxes in pickup trucks or the like, the insert having means for swivel connection of load lashing ropes. The insert is in the nature of an accessory and is manually insertable by lowering the insert into the stake pocket while retracting a pair of sliding latch blocks which are spring biased into engagement with the structure defining the pocket when finger pressure thereon is released.

9 Claims, 6 Drawing Figures



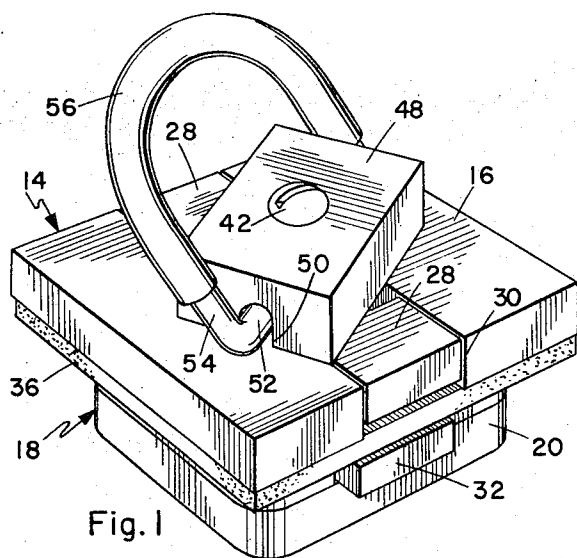


Fig. 1

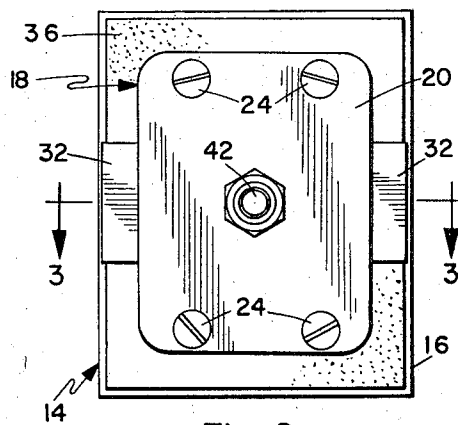


Fig. 2

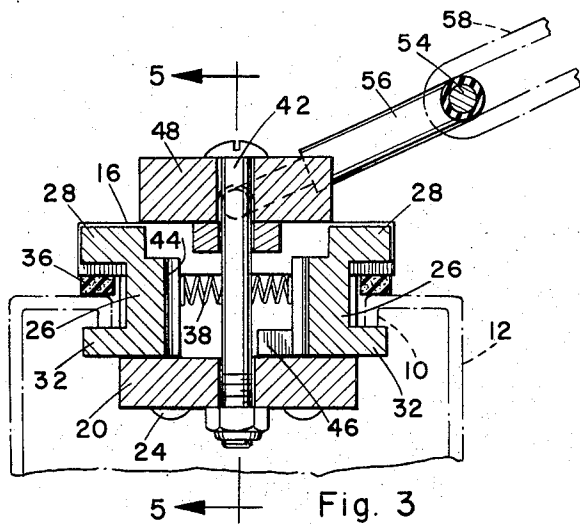


Fig. 3

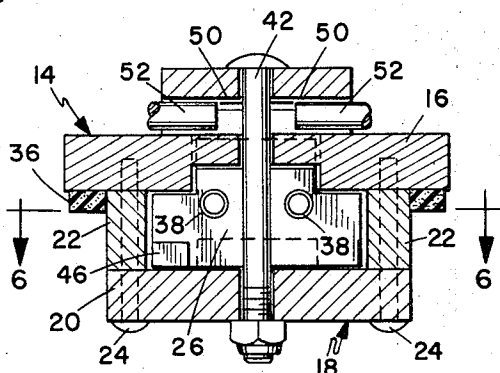


Fig. 5

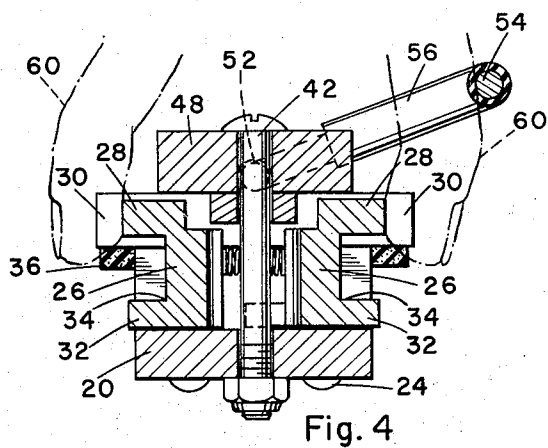


Fig. 4

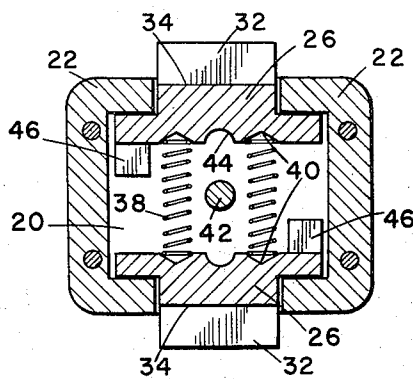


Fig. 6

STAKE POCKET TIE DOWN INSERT

BACKGROUND OF THE INVENTION

Trucks of various kinds have stake-receiving openings or pockets spaced peripherally of the load box or bed and when ropes are required to lash the load against shifting during transit and stakes are not to be used it is convenient to introduce some sort of rope-receiving devices into the stake pockets. Certain devices have been proposed for this purpose but are somewhat difficult to attach, being either of permanently attached or semi-permanent type or being somewhat unreliable in respect of holding capacity against load stresses from all directions. There is a need, therefore, for a tie down insert accessory which is simple and convenient to apply, remove and re-apply, which does not require bolts or screws to attach the item to the truck, and which will not loosen or disengage inadvertently irrespective of the direction of the tension on the lashing ropes connected thereto.

SUMMARY OF THE INVENTION

As claimed, the instant invention satisfies the above-mentioned need and comprises an accessory having a built-up or solid body with a reduced depending portion which fits into the stake pocket and a top plate which functions as a stop to engage the top of the wall or truck bed, the body having a slot in which a pair of opposing latch blocks slidably adjust under spring pressure to an extended position gripping the rim structure defining the pocket and, under finger pressure, are easily shifted to a contracted position allowing insertion and removal of the insert. The actual rope-receiving tie down is a ring swively attached by a pivot bolt extending centrally and vertically through the body and bypassing extensions are provided on the latch blocks to prevent them from tilting.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of the tie down insert;
FIG. 2 is an underside view of the unit;
FIG. 3 is a sectional view taken on line 3—3 of FIG.

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FIG. 4 is a similar sectional view, but showing the latch members retracted from insertion or removal of the insert;

FIG. 5 is a sectional view taken on line 5—5 of FIG. 3; and

FIG. 6 is a sectional view taken on line 6—6 of FIG. 5.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

As illustrated, this invention is employed as an accessory, usually with truck vehicles and especially with pickup trucks having stake pocket openings such as that indicated at 10 in FIG. 3 in the wall 12 of the truck. The insert has a body generally indicated by the numeral 14 and comprising a top plate 16 which may conveniently be rectangular and a depending reduced portion also generally indicated at 18 and conveniently constructed of a bottom plate 20, lateral spacers 22 and machine screws 24 threaded into the lower face of the top plate 16 as best shown in FIG. 5.

A pair of latch blocks 26 are slidably mounted in the body 14 between the spacers 22, the upper portions of the latch blocks constituting finger grips 28 sliding in

the slots 30 opening toward opposite sides of the top plate 16. These latch blocks have latch elements 32 which engage the wall structure defining the stake pocket 10, the recess 34 in each latch block, between the finger grip 28 and the latch element 32, accommodating said stake pocket-defining structure as well as corresponding portions of a compressible pad 36 secured substantially peripherally of and on the underside of the top plate 16. A pair of coil springs 38 are compressed between the latch blocks 26 and terminally retained in depressions or blind bores 40 in the latch blocks. The springs 38 are located one on each side of the main pivot bolt 42 and the latch blocks are radiused as at 44 to accommodate the pivot bolt 42, and further provided with stabilizer extensions 46 which frictionally engage the bottom plate 20 and prevent tilting of the latch blocks.

The pivot bolt 42 swively retains, on top of the top plate 16, a pivot block 48 which has opposing recesses 50 to retain inwardly turned and aligned terminals 52 of a shackle 54 which may be fitted with a non-abrasive sheath 56 to avoid damage to lashing ropes such as indicated at 58.

In use, the insert is pressed downwardly into the stake pocket 10, compressing the pad 36 and with the fingers 60 engaging the finger grips 28 to retract the latch blocks 26 as indicated in FIG. 4, and upon release the latch elements 32 engage under the stake pocket-defining structure at 10, as indicated in FIG. 3. The insert is then in place for use as for attachment of lashing ropes as indicated at 58 in FIG. 3. It will be noted that the pad 36 not only seals the stake pocket but also acts as a rattle preventing means, and the sheath 56 on the shackle 54 when the latter is depressed engages the edge of the pivot block 48 firmly to prevent rattling. It will be obvious that removal of the insert from the stake pocket is equally simply accomplished by merely contracting the latch blocks by manual contact with the finger grips 28 and then lifting the insert from the stake pocket.

Minor variation may be resorted to within the scope of the appended claims. For example, the bottom plate 20 and the spacers 22 can be unitized and the shapes of most of the parts can be varied considerably all within the ambit of the invention as claimed.

I claim:

1. A tie down insert for placement into a stake pocket of a pick-up truck, said insert comprising;
 - a body having a top plate with tie down means thereon and a reduced depending portion slightly smaller in cross section than a stake pocket;
 - a pair of opposed latch blocks mounted on said depending portion for opposed restricted movement into retracted and extended positions;
 - said latch blocks having latch elements extending well outside said depending portion when the latch blocks are in said extended positions;
 - spring means biasing said latch blocks into said extended positions; and
 - said latch blocks having upwardly extended finger grips to facilitate compressing said latch blocks into said retracted positions so that said depending portion can be lowered into a stake pocket prior to release of said finger grips so that said latch elements engage the structure defining the stake pocket;

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each of said latch blocks being integral with the respective finger grip and defining therewith a generally C-shaped member, the two C-shaped members thus defined being outwardly disposed and oppositely directed.

2. A tie down insert according to claim 1 wherein said top plate extends well beyond said depending portion as stop means limiting the insertion of said depending portion into the pocket.

3. A tie down insert according to claim 1 wherein said body has a transverse slot to accept said latch blocks and said latch blocks are slidably mounted in said slot.

4. A tie down insert according to claim 3 and including a pivot bolt fixed vertically and centrally of the insert and pivotally mounting said tie down means on top of said top plate.

5. A tie down insert according to claim 4 wherein said latch blocks are slidably mounted in said body in opposing relation on opposite sides of said pivot bolt, said latch blocks having stabilizer extensions thereon

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frictionally engaging adjacent portions of said body and bypassing each other on opposite sides on said pivot bolt when the pivot blocks are in said retracted position and preventing tilting of the latch blocks in use.

5 6. A tie down insert according to claim 3 wherein said spring means comprises coil springs, one on each side of said pivot bolt, compressed between said latch blocks.

10 7. A tie down insert according to claim 1 wherein said top plate has aligned slots therein and said finger grips are slidably mounted in the slots in the top plate.

15 8. A tie down insert according to claim 3 wherein said transverse slot is in said depending portion and said top plate has aligned corresponding slots communicating with said transverse slot and accommodating said finger grips.

20 9. A tie down insert according to claim 1 and including a compressible pad secured substantially peripherally of and on the underside of said top plate.

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