Aug. 19, 1941. C. D. KELLER 2,253,032

PITMAN CONNECTION

Filed July 6, 1938

Fig. 1.

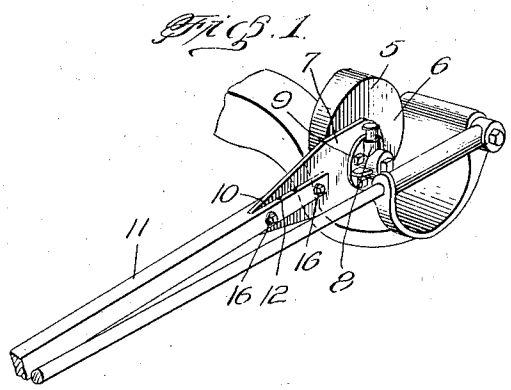


Fig. 2.

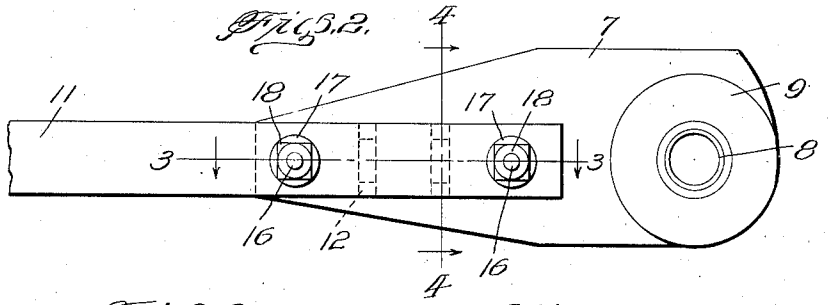


Fig. 3.

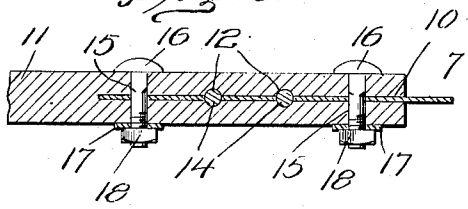


Fig. 5.

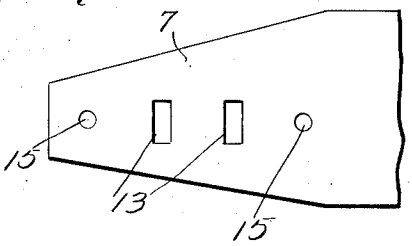
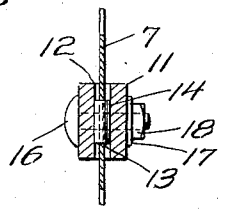


Fig. 4.



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WITNESS

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PITMAN CONNECTION

Cleo D. Keller, Farrington, Wyo.

Application July 6, 1938, Serial No. 217,744

3 Claims. (Cl. 287—103)

My invention relates to pitman connections and more particularly to the connection between the pitman sticks and the pitman boxes.

Ordinarily the pitman stick is connected to the pitman box by a plurality of transversely extending bolts equipped with washers and nuts. Due to the torque imparted to the assembled structure, a considerable number of bolts are ordinarily employed to effect the connection between the box and stick and thus, due to the large number of bolts, increases the weight of the assembly and consequently requires a heavier fly-wheel and crank arm bushing.

It is therefore one of the principal objects of my invention to provide a connection so arranged and constructed as to employ a minimum number of bolts for connecting the stick to the box thereby enabling fly-wheels and bushings of a lesser weight to be employed with a resultant economy in manufacturing.

Another object of my invention is to provide a device of the above described character so constructed and arranged as to reduce friction between the stick and box due to relative creeping when the pitman rod is being operated.

A further object of my invention is to provide a device of the above described character, which is simple in construction, durable in use, and efficient in operation.

Other objects and advantages will be apparent from the following description, appended claims and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a perspective view of my invention illustrating the same attached to the crank arm of a mowing machine.

Figure 2 is a side elevation of my invention.

Figures 3 and 4 are sectional views taken on the lines 3—3 and 4—4 of Figure 2 respectively.

Figure 5 is a fragmentary side elevation of the pitman box.

In practicing my invention, for the purpose of illustrating the same, I employ a fly-wheel 5 of a mowing machine or the like equipped with the usual crank arm 6, the foregoing being of an ordinary or typical construction. A pitman box 7 is fashioned with a crank arm opening 8 receiving said crank arm 6 for imparting reciprocation to said box and said arm is fashioned with a bushing 9 engaging the peripheral wall of the opening 8. The outer end of the pitman box 7 extends within a kerf 10 fashioned in the end of a pitman stick 11 as illustrated in the drawing. Said kerf 10 extends longitudinally and vertical and is fashioned on opposite opposed faces with registering pairs of semi-circular grooves 12 extending through the bottom face of the stick, the upper ends of said grooves terminate subjacent the upper face of the stick. Formed in the end of the box 7, which extends within the kerf 10, are a pair of spaced elongated slots 13 in registry with the grooves 12 and positioned in said slots 13 and extending into said grooves are a pair of elongated friction rollers 14. The box 7 is provided with bolt receiving apertures 15, one located on each side of the slots 13, and said apertures 15 register with similar apertures extending through the stick 11. Bolts 16 extend through said apertures 15 and the registering apertures of the stick and are provided with lock washers 17 and nuts 18 whereby to secure the sides of the stick clamped to the end of the box located within the kerf 10. When the parts are thus assembled, the rollers serve to take up the torque between the box and stick caused by creeping and thus relieve wear on the bolts 16. Also by the use of the rollers 13, a large number of transversely extending bolts is eliminated, thus lessening the weight of the pitman assembly. By thus lessening the weight of the pitman assembly, a lesser weight fly-wheel and bushing may be employed thus effecting an economy in manufacturing.

While I have shown and described my invention in connection with the fly-wheel of a mowing machine, it is to be distinctly understood that my device may be employed in other machine organizations without departing from the spirit of the invention or scope of the appended claims.

What I claim is:

1. In a device of the character described, a pitman member fashioned with a section formed with spaced slots extending therethrough, a pitman stick fashioned with a kerf having oppositely disposed spaced walls provided with grooves registering with said slots, and rollers mounted in said slots and extending into said grooves whereby to receive torque transmitted from said member to said stick when said stick is secured to said member.

2. In a device of the character described, a pitman member fashioned with a section formed with spaced slots extending therethrough, a pitman stick fashioned with a kerf having oppositely disposed spaced walls provided with aligned grooves registering with said slots, rollers mounted in said slots and extending into said grooves whereby to receive torque transmitted from said member

to said stick when said stick is secured to said member, and fastening devices extending through said stick and section for securing said stick to said member.

3. A pitman connection comprising a pitman member formed with a perforation, a pitman stick fashioned with a kerf having oppositely disposed walls embracing said member and enclosing said perforation, said walls provided with recesses registering with said perforation, and a rotatable element mounted in said perforation and extending into said recesses to receive torque transmitted from said member to said stick when the latter is secured to said member.

CLEO D. KELLER.