T. LACEY.

PITMAN.

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1,180,157.

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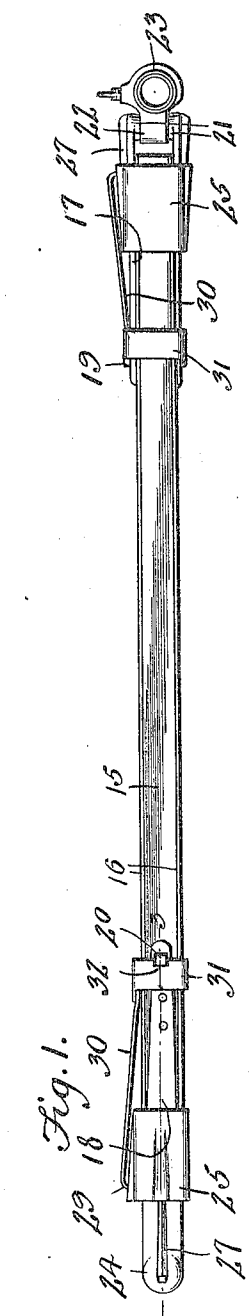


Fig. 1.

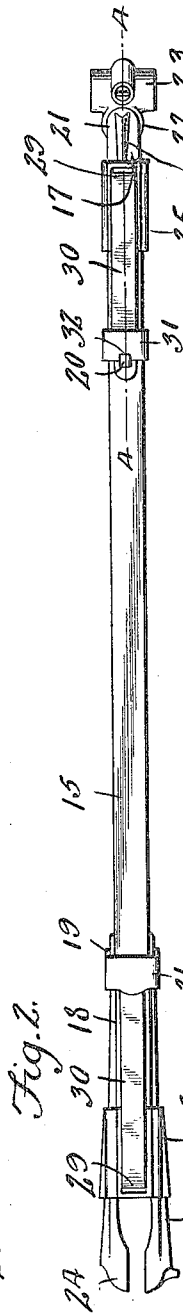


Fig. 2.

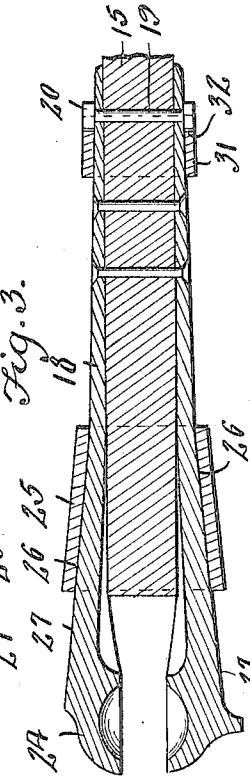


Fig. 3.

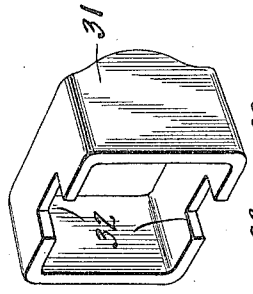


Fig. 6.

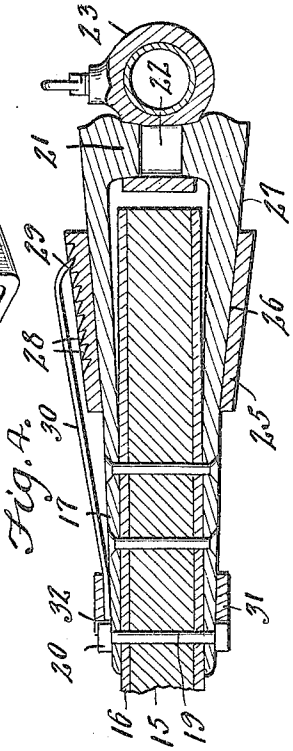


Fig. 4.

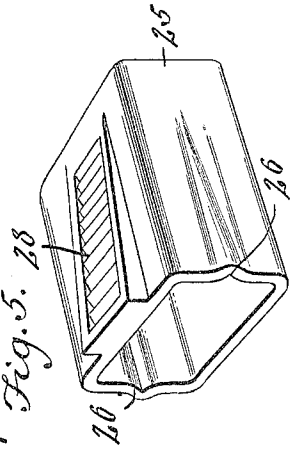


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

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PITMAN.

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To all whom it may concern:

Be it known that I, THOMAS LACEY, a citizen of the United States, residing at Shonkin, in the county of Chouteau and State of Montana, have invented new and useful Improvements in Pitmen, of which the following is a specification.

This invention relates to pitman rods for mowing machines and other devices where a pitman is employed for the transmission of motion or for converting a rotary into a reciprocatory motion, and it has for its object to simplify and improve the construction of the pitman and its connections with adjacent parts.

A further object of the invention is to so improve the construction of the pitman and the connecting devices as to avoid the use of bolts or similar fastening members, thus enabling the parts to be more readily connected and assembled than heretofore.

A further object of the invention is to produce a simple and improved construction whereby the joints or connecting parts will be held resiliently under the requisite tension, the use of bolts or the like being avoided, as above set forth.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claims.

In the accompanying drawing has been illustrated a simple and preferred form of the invention, it being, however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the claims may be resorted to when desired.

In the drawing,—Figure 1 is a front view of a pitman constructed in accordance with the invention. Fig. 2 is a top plan view of the same. Fig. 3 is a longitudinal sectional view taken on the line 3—3 in Fig. 1. Fig. 4 is a longitudinal sectional view taken on the line 4—4 in Fig. 2. Fig. 5 is a perspective view of one of the tension sleeves. Fig. 6 is a perspective detail view of one of the spring retaining collars.

Corresponding parts in the several figures are denoted by like characters of reference.

The pitman rod or body 15 is made of wood, but it is to be reinforced by longitudinal strips 16 of metal, enabling a cheaper grade of wood to be used, and at the same time retaining the important qualifications of strength and lightness. The clamp members 17, 18 which are mounted in pairs at the two ends of the pitman, the clamps at one end being mounted on the top and bottom faces, while the clamps 18 at the other end are mounted on the front and rear faces, are secured in position by means including for each pair of clamp members a bolt 19 having a square head 20. The clamp members 17 at one end are provided with terminal pivot members 21 engaging a bearing 22 formed on a sleeve 23 adapted to engage the wrist pin of the rotary element which actuates the pitman, but which is not shown in the drawing. The clamp members 18 at the other end of the pitman are provided with terminal semi-spherical sockets 24 for engagement with a ball member such as is customarily formed on the reciprocatory cutter bar of a mowing machine, but which is not illustrated, forming no part of the present invention.

The clamp members 17, 18 at the two ends of the pitman are connected with the latter by fastening means including the bolts 19 at the bases or inner ends of said clamp members only, leaving the outer ends of said clamp members free to be spread apart to a limited extent for initial engagement with the parts engaged thereby, the purpose of this being to enable said clamp members to be gradually tightened for the purpose of taking up lost motion caused by wear. To effect this tightening sleeves 25 are provided which may be termed tension sleeves, each of said sleeves being provided with longitudinal grooves 26 to engage wedge-shaped ribs 27 formed exteriorly on the clamp members. Each sleeve also has one of its faces provided with transversely disposed teeth or ratchets 28, said teeth being engaged by a hook or detent 29 formed at one end of a spring 30. The spring 30 is a flat spring which is held in position by means of a collar 31 slidably engaging the pitman rod, one end of the spring being inserted between the rod and the collar. The latter has a notch 32 adapted to engage the square head 20 of the bolt 19 which lies in the path thereof, limiting the movement in one direction of said collar. It will be seen that when the parts are assembled, the end of the spring having the detent 29 resiliently engages the

toothed sleeve 25, thereby preventing the relative displacement of the spring and the sleeve, one end of the spring being held under tension by means of a collar 31.

It will be seen that by taking hold of the spring 31 the detent at the end thereof may be disengaged from the toothed sleeve which may thus be moved or forced in an outward direction on the clamp members engaged thereby, thereby compressing said clamp members on the bearing member engaged thereby and taking up lost motion caused by wear. Any necessary readjustment of the spring may be readily effected, it being loosely held by the collar 31.

Having thus described the invention, what is claimed as new, is:—

1. A pitman rod having bearing engaging clamp members which are free to spread apart at their outer ends and provided with longitudinal wedge-shaped ribs, a sleeve having grooves to engage said ribs, said sleeve being provided with external transversely disposed teeth, and a dog engaging said teeth to retain the sleeve in adjusted position.

2. A pitman rod having clamp members secured thereon, said clamp members being free to spread apart at their outer ends and provided with longitudinal wedge-shaped ribs, a sleeve having grooves to engage said ribs and transversely disposed external teeth, and means for securing the sleeve in adjusted position, said means including a flat spring dog having a terminal detent to engage the teeth of the sleeve.

3. A pitman rod having clamp members secured thereon, said clamp members being free to spread apart at their outer ends and provided with longitudinal wedge-shaped ribs, a sleeve having grooves to engage said ribs and transversely disposed external teeth, and means for securing the sleeve in adjusted position, said means including a flat spring dog having a terminal detent engaging the transverse teeth of the sleeve, and a collar slidable on the pitman rod and loosely confining one end of the spring dog.

4. A pitman rod having bearing engaging clamp members which are free to spread apart at their outer ends, a transversely toothed sleeve exteriorly engaging the clamp members and movable thereon to force them together, a spring dog engaging the toothed sleeve to retain it in adjusted position, and a collar whereby the spring dog is clamped on the pitman.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS LACEY.

Witnesses:
GEORGE F. HUGHES,
R. E. WILLIAMS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."