No. 693,307. Patented Feb. 11, 1902.

C. H. PELTON.

PRESSURE REGULATOR FOR DRAG BARS.

(Application filed Oct. 31, 1901.)

(No Model.)

Fig. 1.

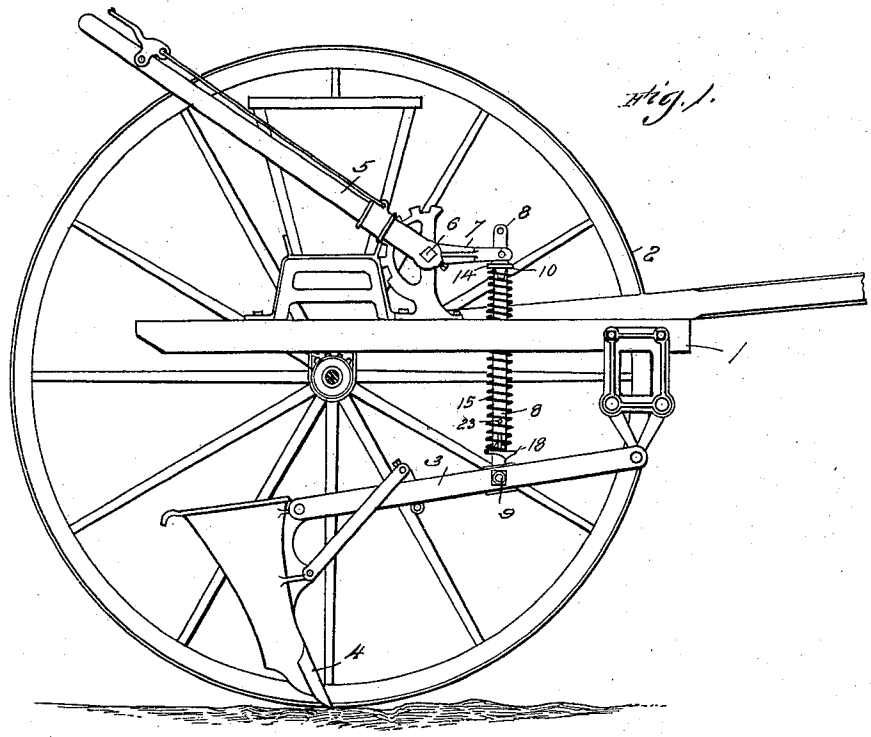


Fig. 2.

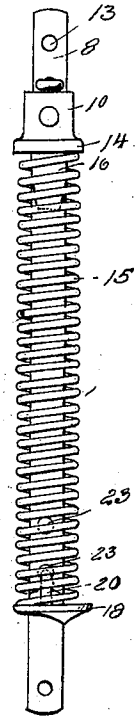


Fig. 3.

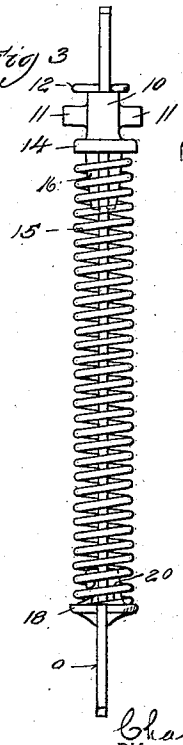


Fig. 4.

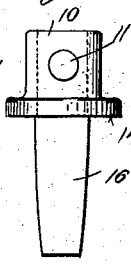


Fig. 5.

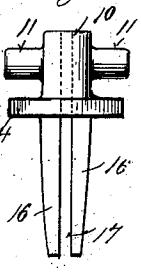
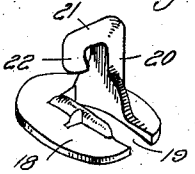


Fig. 6.



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PRESSURE-REGULATOR FOR DRAG-BARS.

SPECIFICATION forming part of Letters Patent No. 693,307, dated February 11, 1902.

Application filed October 31, 1901. Serial No. 80,608. (No model.)

To all whom it may concern:

Be it known that I, CHARLES H. PELTON, a citizen of the United States, residing at Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Pressure-Regulators for Drag-Bars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to pressure-regulators for the drag-bars of grain-drills and the like, and has for its object to provide a construction whereby the spring-pressure employed to act on the drag-bars in order to force the furrow-opening devices into the ground may be readily regulated.

To these ends my invention consists in certain novel features, which I will now proceed to describe and will then particularly point them out in the claims.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of a construction showing my invention applied to a grain-drill. Fig. 2 is an enlarged detail view of the pressure-regulating devices proper. Fig. 3 is a rear elevation of what is shown in Fig. 2. Figs. 4 and 5 are detail views of the upper abutment or collar, and Fig. 6 is a perspective view of the lower abutment or collar.

In the said drawings, 1 indicates the frame of the machine, supported on wheels 2 and having pivoted to it at their forward ends drag-bars 3, which carry furrow-openers 4 of any suitable construction. These drag-bars are raised and lowered by means of a lever 5, secured to a rock-shaft 6, mounted on the frame 1, and provided with arms 7, one for each drag-bar. Each arm 7 is connected with its drag-bar by means of a link 8, consisting of a flat bar pivoted at its lower end at 9 to the drag-bar. Upon the link 8 there is mounted, near its upper end, a sliding collar or abutment 10, pivotally connected with the arms 7 by means of studs 11 and having its upward motion limited by a cotter or other suitable retaining device 12, which may be inserted through any one of a series of holes 13 in the link 8. The abutment 10 is provided with a disk-shaped body portion 14, forming a shoulder, against which bears the upper end of a coiled spring 15, surrounding the link or bar 8. From this disk-shaped body there extend downward two lugs 16, lying on opposite sides of the link 8, the space 17 between them being adapted to receive and fit upon said link, while the outer portions of said lugs are rounded to fit within the hollow of the coil of the spring 15, thus serving to properly center said spring, which latter in turn serves to center and hold in position the abutment 10, around the lugs 16 of which it fits. Each link 8 is provided near its lower end with a second abutment 18, having a disk-shaped body portion provided with an open-mouthed slot 19, by means of which it may be slipped onto or off from the link or bar 8 at any point thereof. From this disk-shaped body there extends upward a hook comprising a vertical portion 20, a transverse portion 21, and a downwardly-extending portion 22, parallel with the portion 20. The link or bar 8 is provided at its lower end with a plurality of apertures 23, into any one of which the hook of the lower abutment may be introduced. By swinging the lower abutment around the portion 21 as a pivot until the disk-shaped body portion has been drawn clear of the link the hook may be so turned as to readily disengage it from that one of the apertures 23 in which it is inserted, thereby permitting the said lower abutment to be raised or lowered, as the case may require, and engage with the aperture 23 which will give it the desired position.

It will be seen that by means of the lever 5 the pressure exerted through the springs 15 on the drag-bars 3 may be varied as desired as to all of said drag-bars. It will also be seen that by adjusting the lower abutment in the manner above described the pressure of each individual spring may be varied as desired independently of the others. The construction is, moreover, such that the adjustable lower abutment for the spring is firmly held in position, readily adjusted, and not apt to become accidentally detached or lost.

I do not wish to be understood as limiting myself to the precise details of construction hereinbefore described, and shown in the accompanying drawings, as these details may obviously be modified without departing from the principle of my invention.

Having thus fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

1. In a pressure-adjusting device for drag-bars, the combination, with a frame, drag-bars pivoted thereto at their forward ends and provided with furrow-opening devices, and a rock-shaft mounted on the frame and provided with an operating-lever and with an arm for each drag-bar, of a connecting-link pivoted to the drag-bar, an upper abutment mounted to slide on said link and pivotally connected to the corresponding arm of the rock-shaft, means on said link for limiting the upward motion of said upper abutment, a coiled spring encircling the link, and bearing against the upper abutment at its upper end, and a vertically-adjustable lower abutment on each link, comprising a disk-shaped body having an open-mouthed slot to fit the link, and a hook-shaped portion extending upward from said body, said link being provided with a plurality of apertures, with any one of which said hook-shaped portion may be engaged, substantially as described.

2. In a structure of the character described, the combination, with a drag-bar, a pressure-transmitting link pivoted thereto, and a pressure-spring coiled around said link, said link being provided with a plurality of apertures, of an abutment for the lower end of said spring, comprising a disk-shaped body having an open-mouthed slot, and a hook-shaped portion extending upward from said disk-shaped body and having a vertical portion, a horizontal portion, and a downward projection on the end of said horizontal portion, substantially as described.

3. In a structure of the character described, an abutment for the upper end of the pressure-spring, comprising a body portion slotted to fit the link and having formed thereon a shoulder against which the end of the spring abuts, and parallel lugs extending downward from said shoulder and having a slot or space between them to receive and fit upon the link, the outer surfaces of said lugs being rounded to fit within the coil of the spring, substantially as described.

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

CHARLES H. PELTON.

Witnesses:
E. O. HAGAN,
IRVINE MILLER.