No. 875,166. PATENTED DEC. 31, 1907.

J. P. FELL.

ADJUSTABLE SCRAPER ATTACHMENT FOR DISK PLOWS.

APPLICATION FILED MAY 18, 1906. RENEWED MAY 27, 1907.

2 SHEETS—SHEET 1.

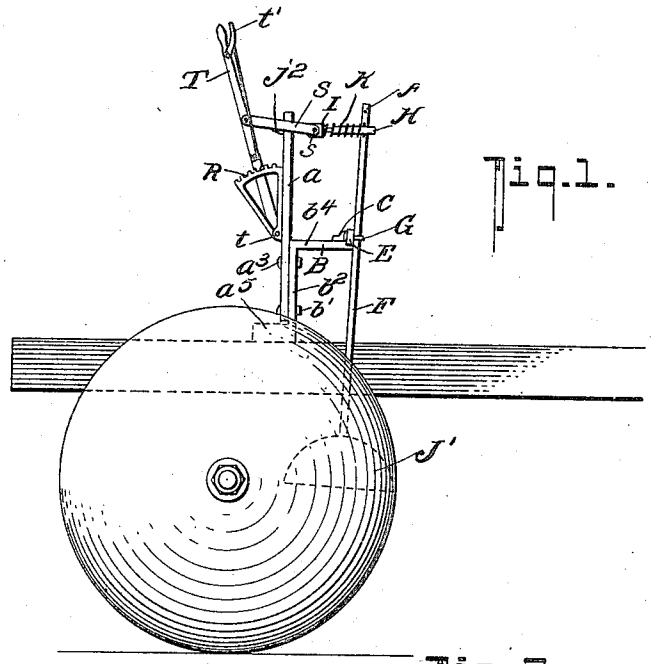

Fig. 1.

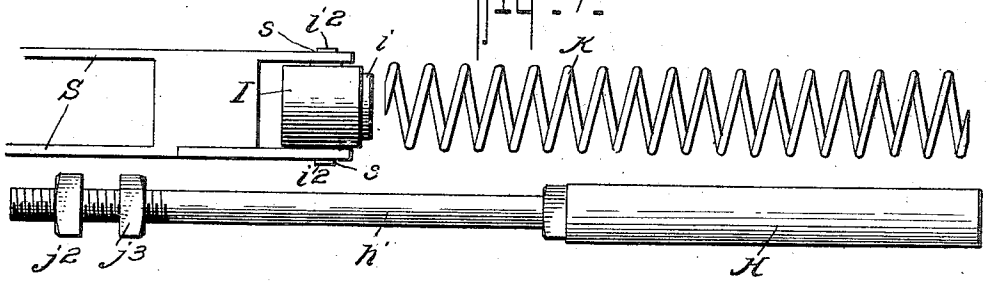

Fig. 7.

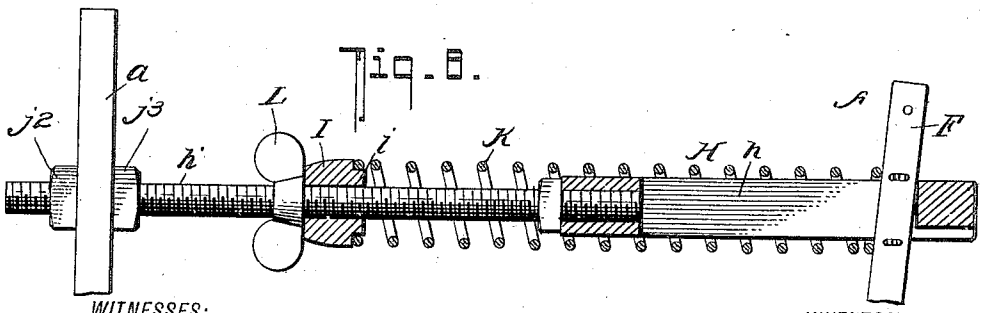

Fig. 8.

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2 SHEETS—SHEET 2.

Fig. 2.

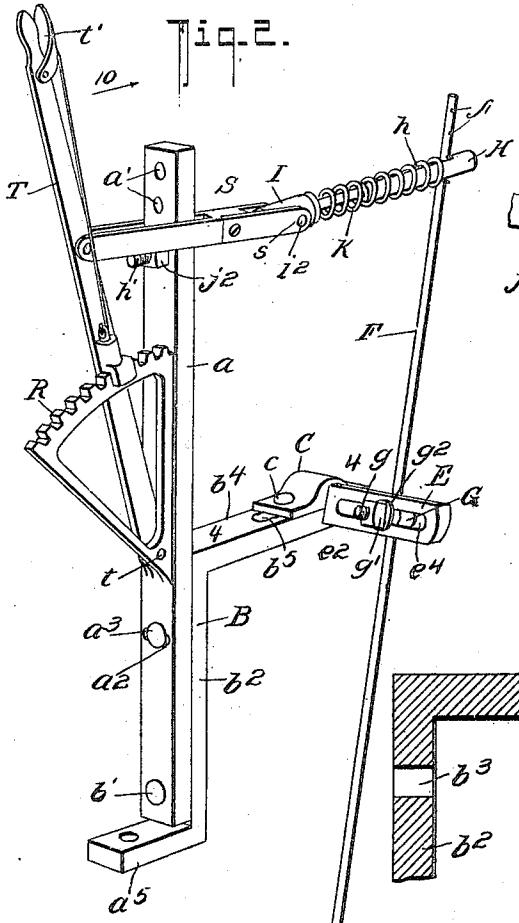


Fig. 3.

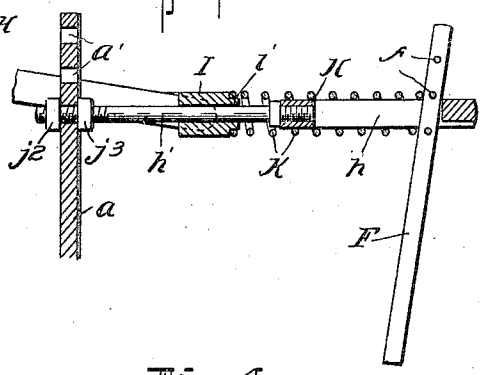


Fig. 4.

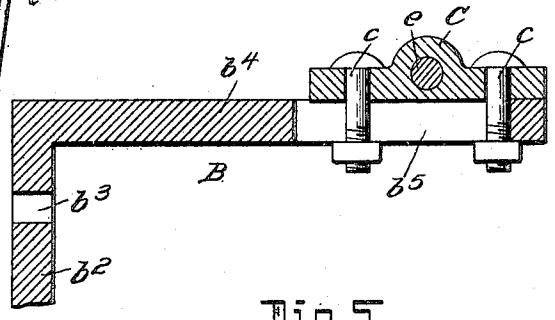


Fig. 5.

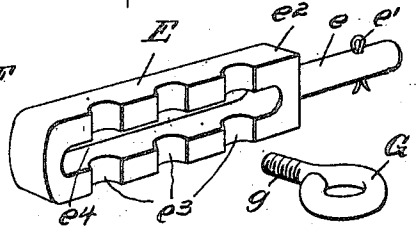
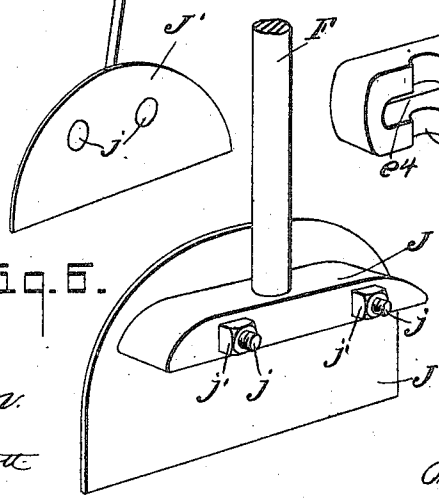


Fig. 6.



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UNITED STATES PATENT OFFICE.

JULIUS P. FELL, OF BERCLAIR, TEXAS.

ADJUSTABLE SCRAPER ATTACHMENT FOR DISK PLOWS.

No. 875,166. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed May 18, 1906, Serial No. 317,444. Renewed May 27, 1907. Serial No. 375,881.

To all whom it may concern:

Be it known that I, JULIUS P. FELL, residing at Berclair, in the county of Goliad and State of Texas, have invented a new and Improved Adjustable Scraper Attachment for Disk Plows, of which the following is a specification.

My invention seeks to provide a simple, economical and easily applied scraper device for disk plows, and it comprehends generally, a suitable support, adapted to be connected with the ordinary types of disk plow machines, and means mounted thereon arranged to be adjusted to suit the character and arrangement of the plow disks for scraping the said disks, and under such tension or pressure whereby to clean any disk in any kind of soil, and which will effectively clean the disk without loss of time in its cleaning action.

In its more complete nature, my invention embodies a novel correlation of a supporting frame, a scraper carrying member adjustably mounted thereon, and adjustable spring actuated means for holding the scraper to the disk whereby to provide for a proper relaxation of the scraper and the control of pressure of the scraper in accordance with the character of work required to properly and expeditiously clean the disks.

In its more subordinate features, my invention consists in certain details of construction and peculiar combination of parts, hereinafter fully described, pointed out in the claims and illustrated in the accompanying drawings, in which:—

Figure 1, is a view illustrating my invention as applied for use. Fig. 2, is a perspective view of the attachment. Fig. 3 is a side elevation thereof, the tension spring and its controlling devices being in section. Fig. 4, is a transverse section of the same on the line 4—4 on Fig. 2. Fig. 5, is a detail view of the adjustable fulcrum or bearing member for the scraper carrying rod. Fig. 6, is a similar view of the scraper and its carrying rod, and Fig. 7, is a detail view of the slotted rod receiving member, the tension spring and the spring adjusting devices separated. Fig. 8, is a side elevation, parts being in section, illustrating a modified construction of devices for regulating the tension spring hereinafter referred to.

In the practical arrangement, my invention comprises a supporting bar a having at one end a series of apertures a' and at a suitable point intermediate its ends, it has a transverse slot a^2 to receive the clamping bolt a^3 that secures an angle frame B to its laterally adjusted positions when swung on the pivot bolt b' that connects the pendent member b^2 of the frame B to the outer end of the bar a, as clearly shown in Fig. 1, such connection of the frame B to the bar a being provided to allow for adjusting the scraper laterally at such angle with respect to the bar a to suit the work required, the said member b^2 being also provided with a transverse slot b^3 that registers with the slot a^2, and the latter member is provided with a foot portion a^5 for conveniently connecting the attachment to any of the ordinary types of disk plow frames.

The outer end of the member b^4 of the angle frame B has an elongated slot b^5 in which is held the adjustable bearing bracket C secured to its set positions by the nut carrying bolts c—c, and in the said bracket C is rotatably mounted a bracket E having a shank e that fits the bracket C and is held in place by the spring key e' at one side and the shouldered portions e^2 of the bracket at the other side of the bracket C.

The bracket E projects laterally from the member b^4 and one face thereof has a series of concaved seats e^3 to receive the rod F presently again referred to, and it also has an elongated longitudinal slot e^4 in which is slidably held an eye bolt G, whose shank g passes through the slot e^4 and is made fast to any of its adjusted positions by the nut g' and washer g^2.

The eye bolt G forms the adjustable clamp for holding the rod F to the desired position on the fulcrum bracket E, to bring the scraper J′ to properly engage the plow disk.

The scraper J′ has a semi-circular shape, and is made fast by the bolts and nuts j—j' to the cross piece J on the outer end of the rod F. The other end of the rod F has a series of apertures f' to receive a split key and the said end, when the parts are adjusted to their operative position, plays in a long vertical slot h in the tension spring carrying member H, the outer end of which terminates in a smooth rod h' that adjustably connects with either of the apertures a'—a' in the part a to which it is firmly secured by clamping nuts j^2—j^3 that engage the threaded end of the rod h' as clearly shown in Fig. 3.

The tension spring K, in the preferred

form, is mounted on the slotted end of the member H and is held between the rod F and the hub I, the latter being slidably mounted on the smooth rod portion b', and which has trunnions i^2—i^2 to receive the bifurcated ends s—s on the link arm S, the outer end of which is also bifurcated and pivotally connected with an upwardly projecting lever T, fulcrumed at t on the frame member a.

The lever T is provided with a hand controlled spring latch t' that engages with a ratchet arm on the member a as shown, the said parts being so arranged that by swinging the lever T in the direction of the arrow 10, the tension of the spring K is increased and by moving the said lever in the other direction the tension of the spring K is relaxed, thus providing for adjusting the tension of the spring pressure on the rod F without stopping the plow.

In Fig. 8 is illustrated a modified construction of the means for controlling the tension of the spring K, and in the said construction the rod portion h' is threaded its length to receive a wing nut L that engages with hub I which, in the present construction, has a reducing portion i that fits into the outer end of the spring K, as shown.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:—

1. A scraper attachment for plows, which comprises the following elements in combination; the supporting member B, the bar a adjustably mounted thereon, a bracket mounted on the member B, laterally and rotatably adjustable with respect to the said member B, means for effecting such adjustments, a scraper carrying rod, means for adjustably connecting the said rod to the adjustable bracket and adjustable tension devices carried by the member a for applying pressure to the said scraper member.

2. In a scraper attachment for disk plows, the combination with a scraper carrying rod and a supporting means which includes an adjustable fulcrum bearing for the said rod; of a slotted member adjustably connected to the supporting means, the slot of which is adapted to receive the outer end of the scraper carrying rod, a tension spring mounted on the slot member and devices also mounted on the slot member for regulating the tension of the said spring, as set forth.

3. In an attachment of the character described, the combination with a supporting bar, a scraper carrying rod, a fulcrum for the said rod sustained by the supporting bar and having lateral and vertical adjustment with respect to the said bar; of a slotted bar H having a threaded portion, means for adjustably connecting the said portion to the supporting bar, a coil spring mounted on the bar having one end arranged to engage the scraper rod, a hub piece slidable on the threaded portion of the bar H, and an adjusting means that engages the said hub member, for the purposes described.

4. In an attachment for disk plows, a supporting frame, a rod carrying a scraper at one end having a fulcrum bearing midway its ends, a guide for the other end of the rod, a tension spring on the guide that engages the said rod, a sliding hub on the guide that engages the spring, a ratchet held lever on the support and a link connection that joins the said lever with the sliding hub, for the purposes described.

5. The combination with the supporting frame, a scraper rod, and a bracket having a bearing for the said rod pivotally and adjustably connected to the supporting frame; of an adjustable tension device that engages the upper end of the scraper rod and which consists of a slot member secured to the supporting frame, a hub slidably mounted on the said member, a spring on the said member between the rod and the hub, actuating lever pivotally connected to the supporting frame, and link connections that join the lever and the sliding hub, all being arranged substantially as shown and for the purposes described.

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Witnesses:
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