

J. SHACKELFORD.
DISK PLOW SCRAPER.
APPLICATION FILED MAY 21, 1910.

975,577.

Patented Nov. 15, 1910.

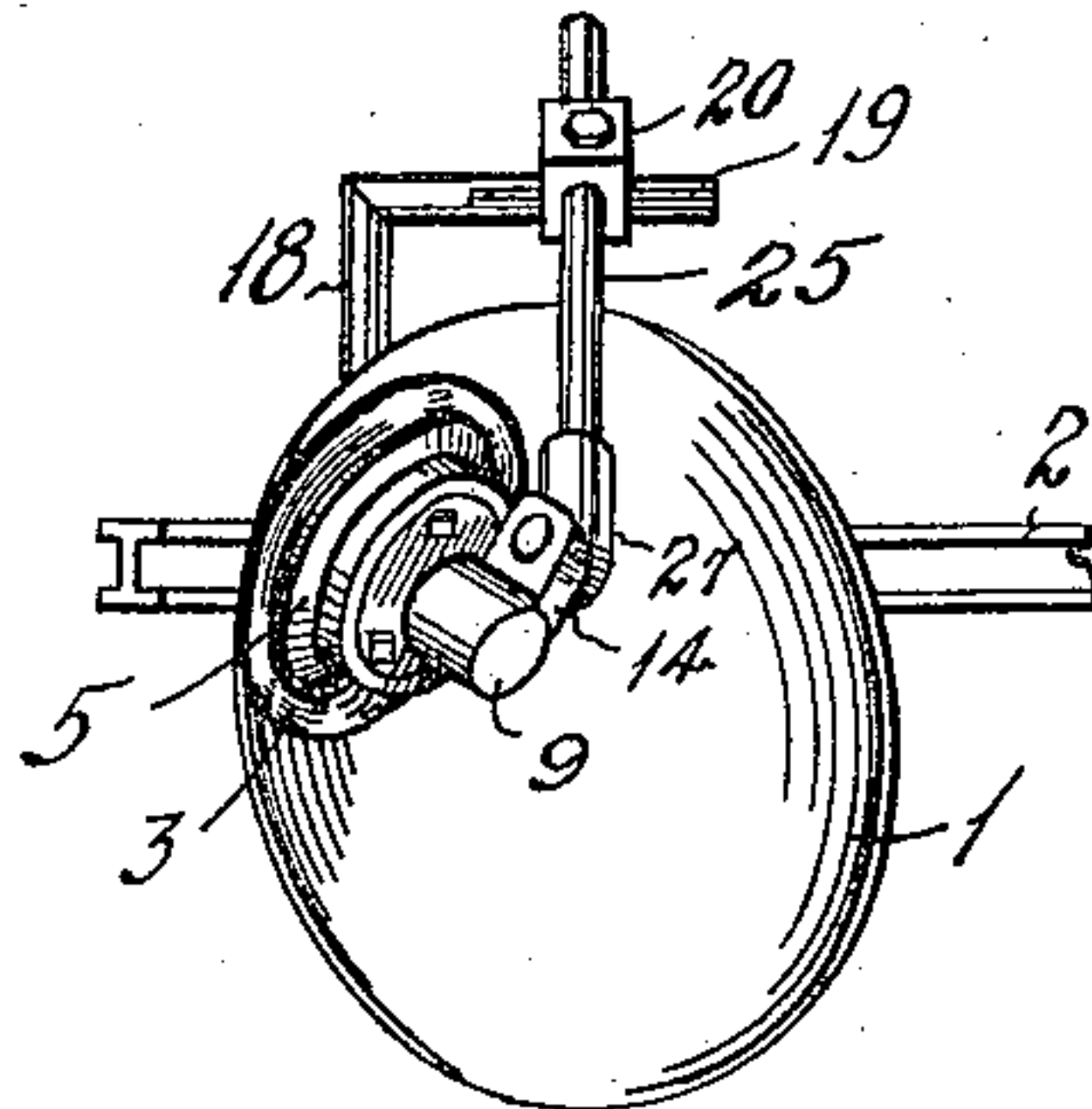


Fig. 1.

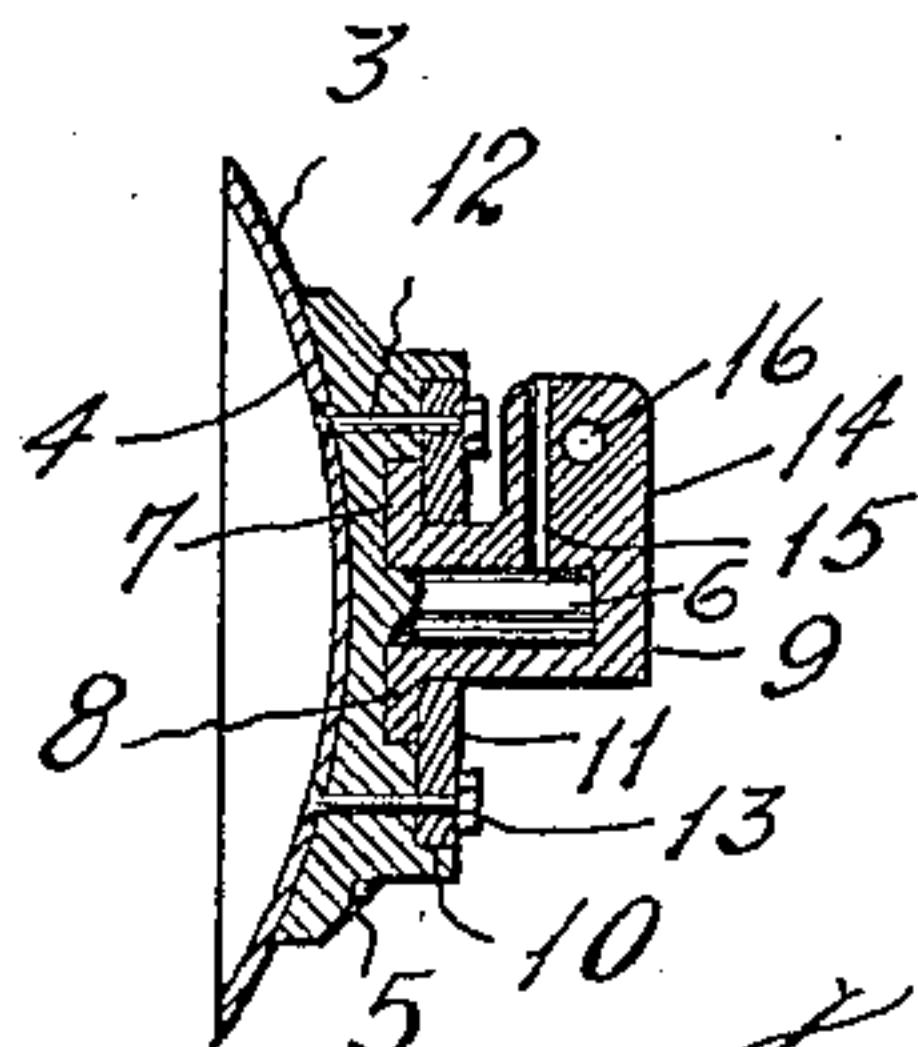


Fig. 3.

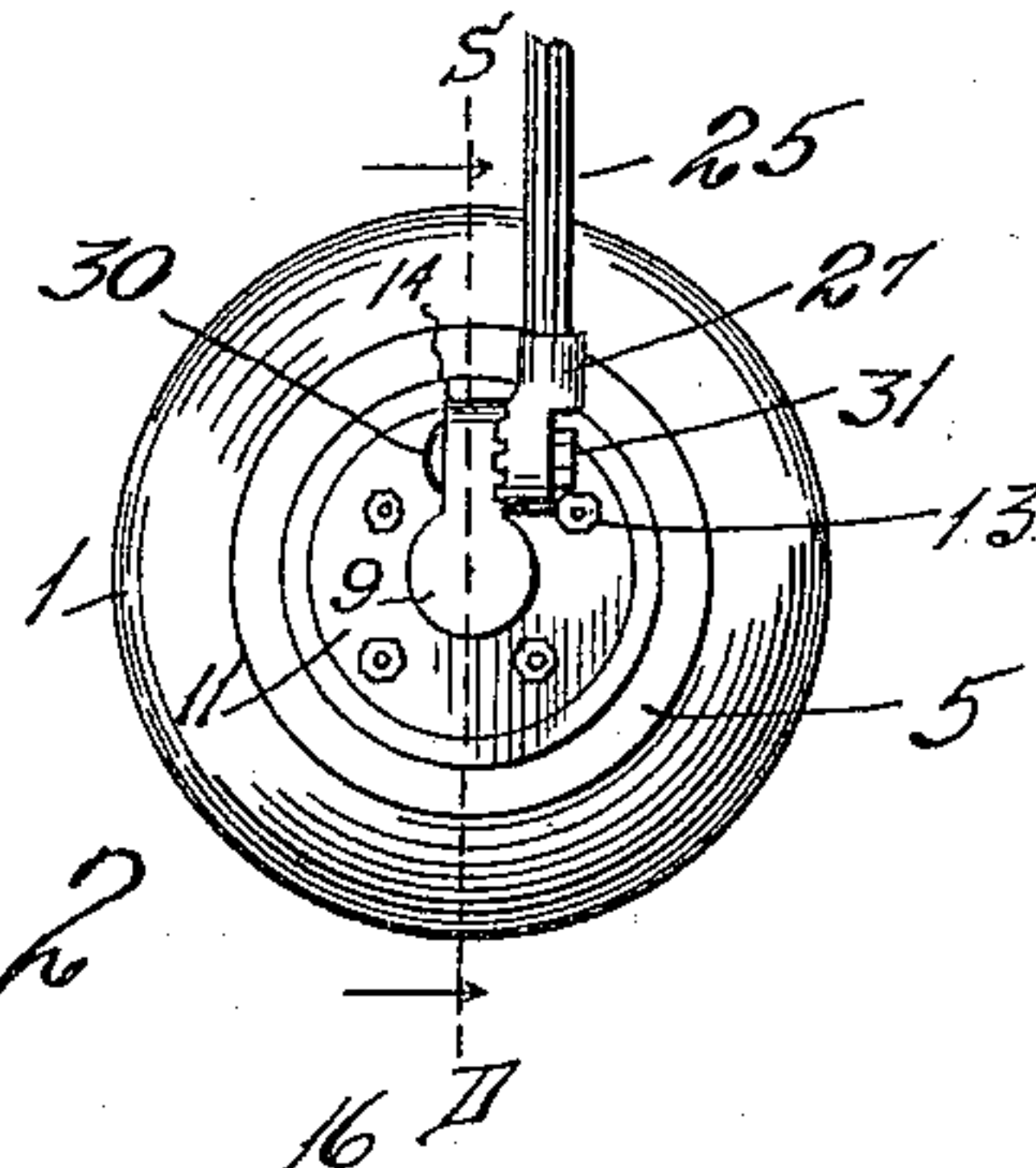


Fig. 2.

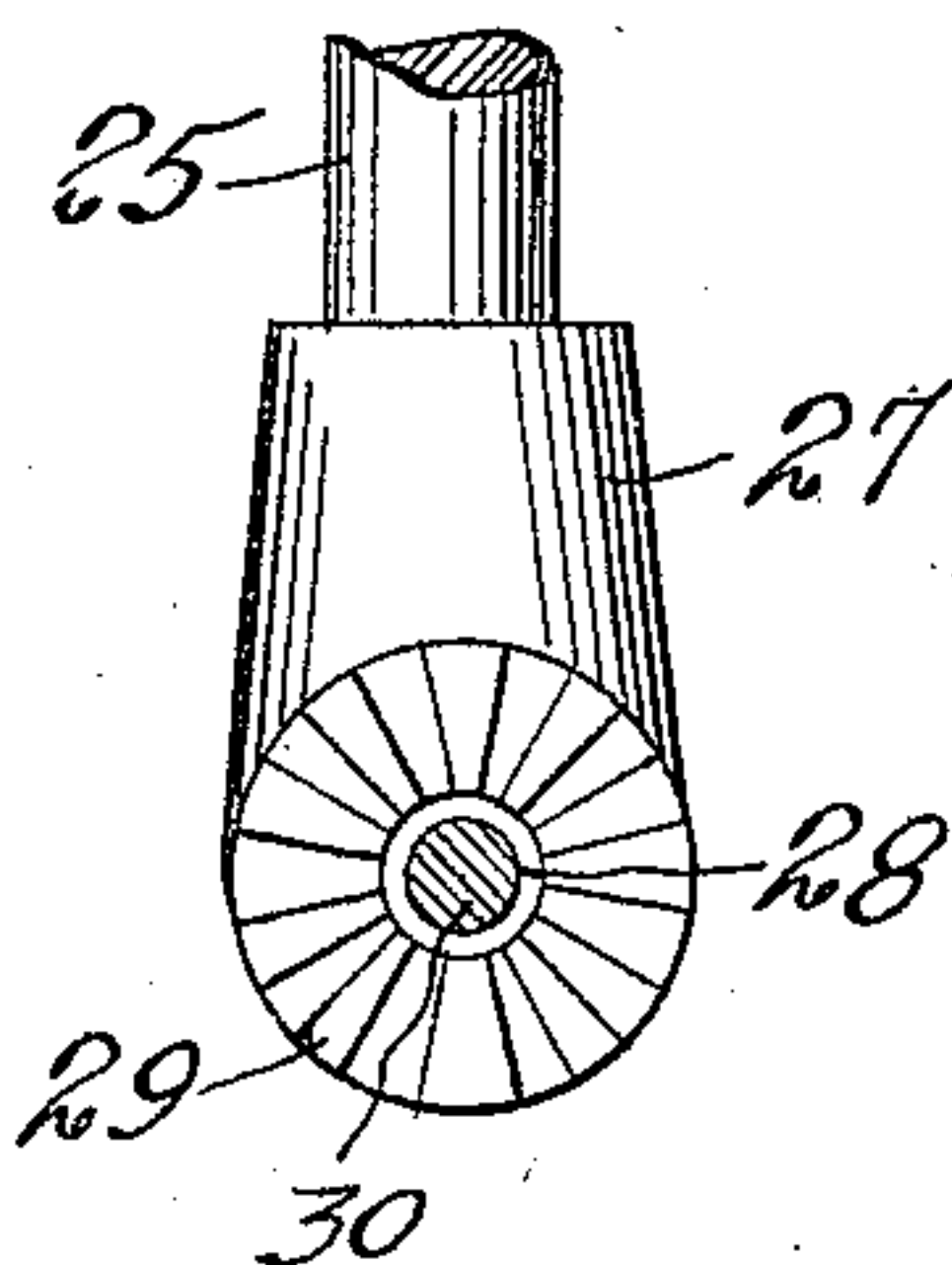


Fig. 4.

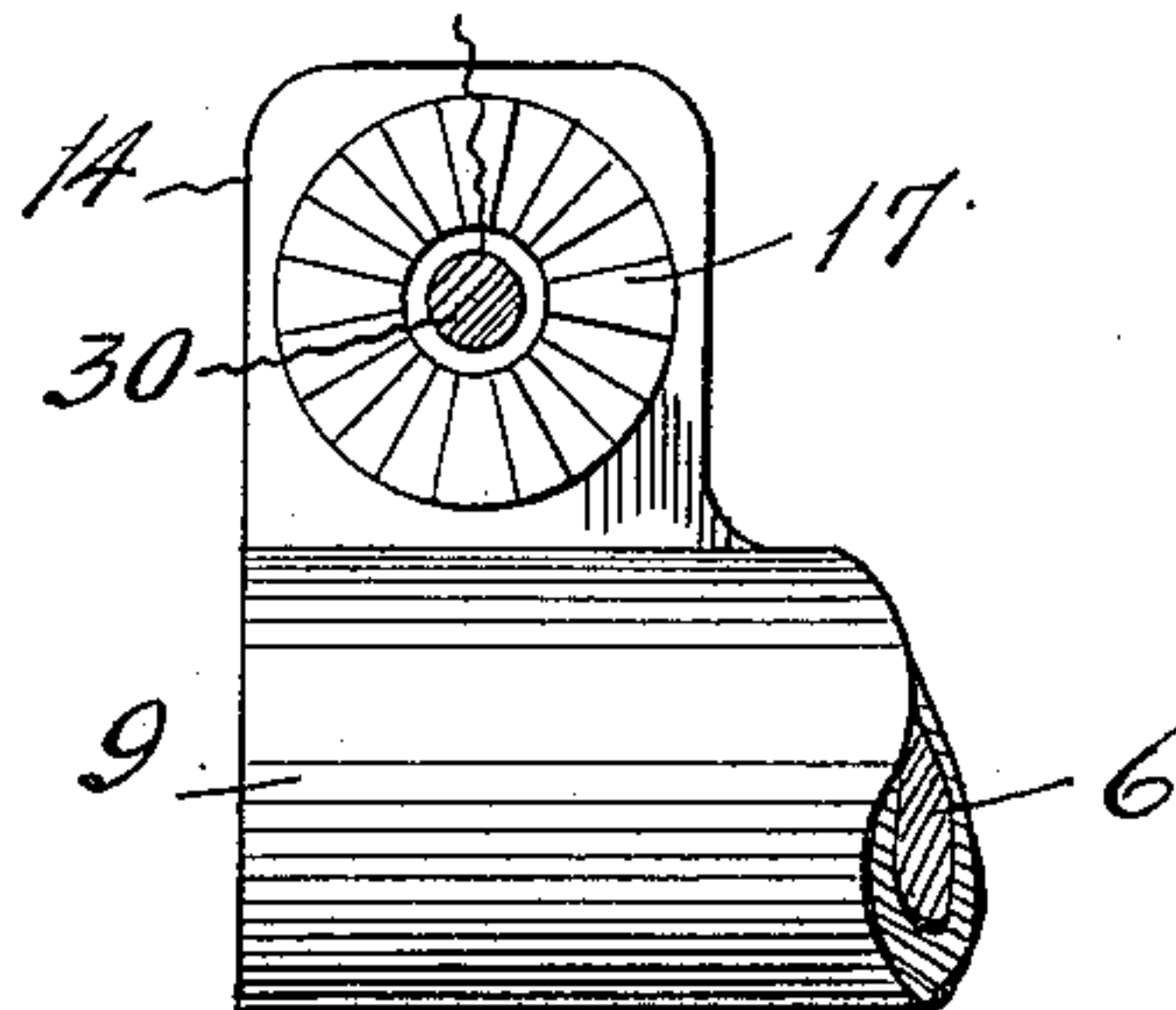


Fig. 5.

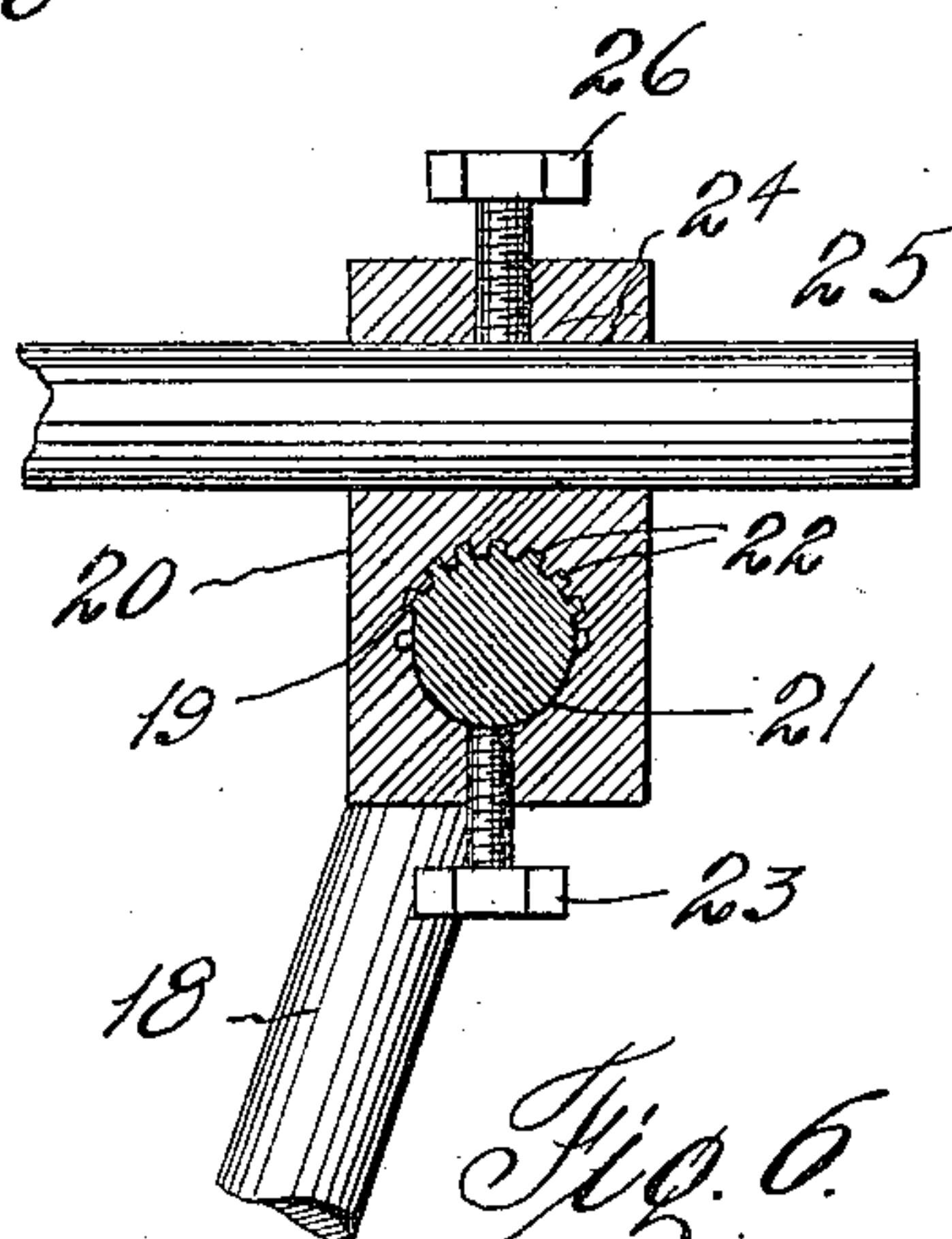


Fig. 6.

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DISK PLOW-SCRAPER.

975,577.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JAMES J. SHACKELFORD, citizen of the United States, residing at Putnam, in the county of Callahan and State of Texas, have invented certain new and useful Improvements in Disk Plow-Scrapers, of which the following is a specification.

This invention has relation to disk plow scrapers.

The object of the invention is to provide a scraper in the form of a disk supported in revolving relation to the plow disk.

Further features of construction reside in a novel support for the scraper disk and certain adjustable connections whereby the scraper disk may be properly positioned with relation to the plow disk.

Finally the object of the invention is to provide means of the character described that will be strong, durable, efficient, and easy of operation, simple and comparatively inexpensive to construct, and also in which the several parts will not be likely to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in this specification and illustrated in the accompanying drawings, wherein:

Figure 1 is a perspective view showing my scraper attached to the beam of a plow, Fig. 2 is a rear elevation of the scraper disk, Fig. 3 is a sectional view of the same taken on the line S—D of Fig. 2, Fig. 4 is a detail of a coupling member, Fig. 5 is a detail of a portion of the hub box, and Fig. 6 is a detail showing the clamp block in section.

In the drawings the numeral 1 designates an ordinary plow disk suitably mounted and supported from the beam 2 of the plow. These parts are of the usual construction and form no part of my invention.

In carrying out my invention I provide a concaved disk 3 having a somewhat smaller diameter than the disk 1. This disk 3 which I will call the scraper disk, is fitted into the concaved face 4 of a hub block 5 provided at its central portion with an integral and outwardly extending axle 6, which is of course in concentric relation to the disk 3. At the base of the axle an annular recess 7 is formed and snugly receives the annular flange 8 of a hub boxing 9 into which the axle extends. The block 5 is provided with another

recess 10 of larger diameter than the recess 7 and adapted to receive a guard ring 11. This ring surrounds the box 9 and extends over the flange 8 thereby confining the same within the recess 7. A plurality of bolts 12 passed through the disk 3, block 5 and ring 11 fasten, in connection with nuts 13, the parts in proper position. It is apparent that by this arrangement the disk 3, block 5 and ring 11 are revolubly supported by the hub box 9. At its outer portion the hub box is provided with a laterally extending coupling boss 14 which is provided at one side with a longitudinal oil passage 15 by which oil may be supplied to the axle 6. The boss 14 has an opening 16 extending there-through in transverse relation to the axle 6, while at one side of the boss teeth 17 radiate from the opening.

In order to support the disk 3 in proper position on the disk 1 and to permit the adjustment of the former a suitable support must be employed. The exact construction of the support may be varied to suit different makes of plows. I have shown in the drawings a support which may be attached to most any make of plow now in general use. This support comprises an angular member 18 suitably fastened to the plow beam and having its lateral portion provided with longitudinal ribs 19. The leg is round with the ribs projecting from a portion of its surface only, thus leaving a portion of the surface smooth. A clamp block 20 is provided with an opening 21 suitably shaped to receive the leg. This block may be adjusted on the leg in the arc of a circle and to permit this the block has transverse recesses 22 in a greater number than the ribs 19. To adjust the block the same is moved inward on the leg until the recesses avoid the ribs 19 which only extend a part of the length of the leg. The block is then swung to the desired point and moved outward on the leg, the recesses again receiving the ribs. A set screw 23 is threaded in the block and impinges the smooth surface of the leg to fasten the block against longitudinal displacement and also to permit a longitudinal adjustment of the block on the leg of the support. The block 20 is also provided with a transverse opening 24 at right angles to the opening 21 and receives a round shank 25. This shank is adjustable through the block and may be fastened in position by a set screw 26 threaded through

the block and impinging the shank as shown in Fig. 6. On the lower end of the shank a coupling member 27 is secured. Near its lower end the coupling member has a transverse opening 28 and at one side of the member, teeth 29 radiate from the opening. The teeth 29 correspond to the teeth 17 and the member 27 is brought into engagement with the boss 14 so that the teeth and the openings 16 and 28 register. A bolt 30 is passed through the said openings and receives a nut 31 bearing against the reduced outer side of the member 27. By means of this nut and bolt the parts are fastened together and by loosening the nut and disengaging the teeth, the hub box 9 may be adjusted in the arc of a circle having its center in the bolt.

By provision of the adjustment between the boss 14 and the member 27 the scraper disk 3 is adjusted with relation to the disk 1 so that its periphery will properly engage the face of the said disk 1. The block 20 and its connections provide for the vertical as well as a radial adjustment of the scraper disk with relation to the plow disk. It is obvious that by manipulating the parts various adjustments may be had, even to a comparatively fine degree.

By providing a revoluble scraper disk in place of a fixed scraper less wear is had and

dirt or mud is not as likely to lodge between the scraper and the plow disk. It is obvious that where a fixed scraper is used there is wear on both the scraping edge of the scraper and the concaved face of the plow disk and more or less adjustment of the scraper is necessary. In the case of the present invention both the scraper and the plow disk revolves thus reducing wear to a minimum and making an adjustment of the part only occasionally necessary.

What I claim is:

In a disk plow scraper, a disk block, a concaved scraper disk connected to the block, a boxing in which the block is journaled, a support, a boss extending from the boxing and having a roughened portion, a shank adjustably connected to the support, a coupling member secured on the lower end of the shank and having a roughened portion in engagement with the like portion of the boss, and a connection for holding the roughened portions of the boss and the member in engagement.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES J. SHACKELFORD.

Witnesses:

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