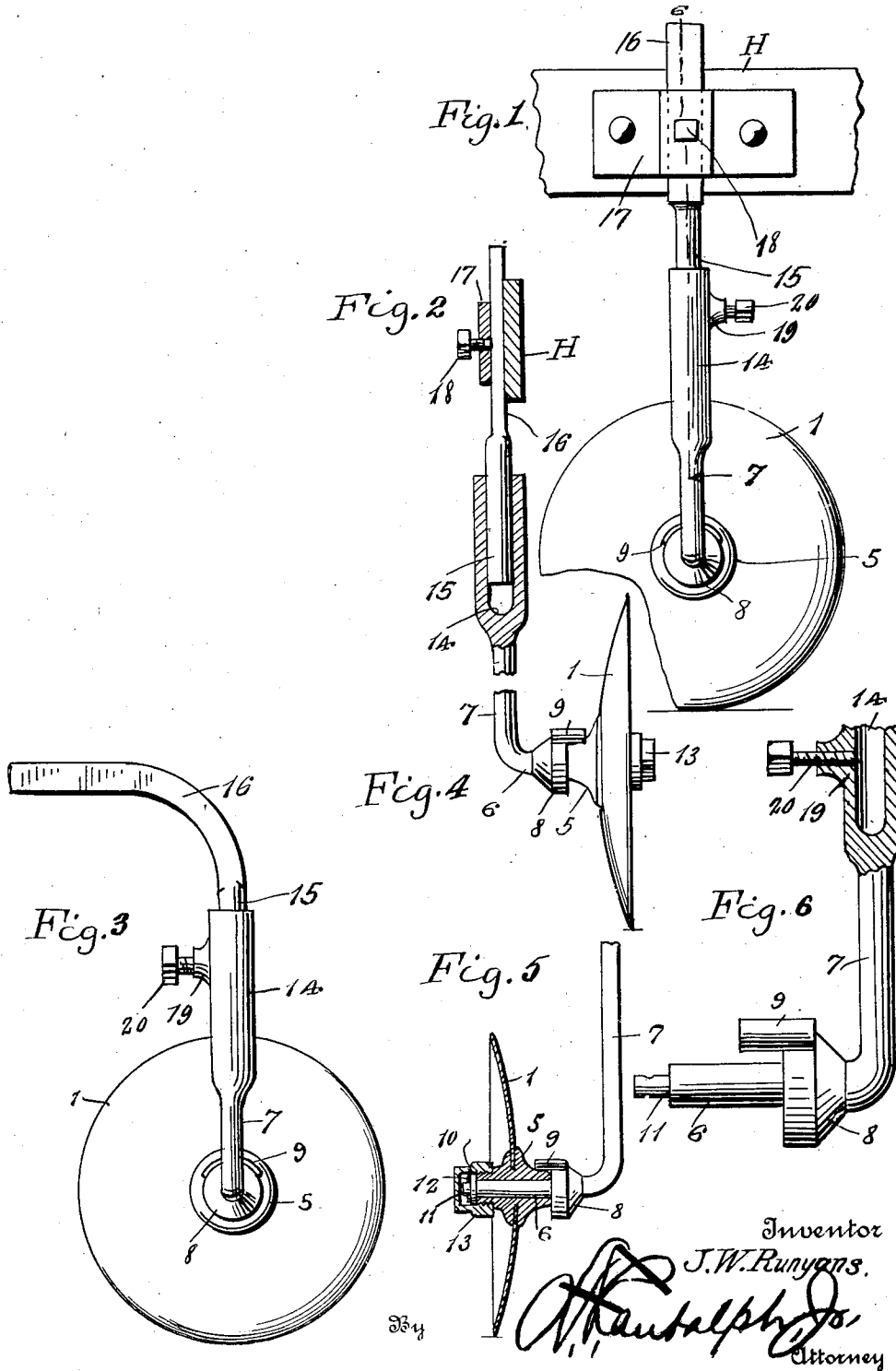


J. W. RUNYANS.
CULTIVATOR ATTACHMENT.
APPLICATION FILED NOV. 2, 1918.

1,360,801.

Patented Nov. 30, 1920.



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CULTIVATOR ATTACHMENT.

1,360,801.

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To all whom it may concern:

Be it known that I, JAMES W. RUNYANS, a citizen of the United States, residing at Sulphur, in the county of Murray and State of Oklahoma, have invented certain new and useful Improvements in Cultivator Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to cultivator attachments, and one of its objects is to provide a novel disk standard by means of which the disks may be readily attached to a cultivator of any standard construction.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawing, wherein:

Figure 1 is a view in side elevation of a disk and standard constructed in accordance with my invention, the standards being shown connected to the shovel arm of a cultivator.

Fig. 2 is a section taken on the vertical plane indicated by the line 6—6 of Fig. 1. Fig. 3 is a view in side elevation of a disk and a slightly modified form of standard.

Fig. 4 is an edge view of the disk and the lower portion of the standard.

Fig. 5 is a vertical section through the disk and its hub, showing the spindle and the dust sleeve of the standard in elevation, and

Fig. 6 is a detail view of the lower section of the standard.

Referring to the drawing by reference numerals, 1 designates a concavo convex disk of a well known construction it being formed of steel of suitable gage and temper. At its central portion, this disk is provided with a flanged hub plate 5 secured thereto, this plate constituting a supporting hub for the body of the disk. This hub is adapted to receive a spindle 6 formed integrally with the lower section 7 of a supporting standard at the lower end thereof and disposed at right angles to the standard. This standard may be formed from a suitable length of cylindrical material, and is provided adjacent the outer end of the spindle with an integral enlargement or head 8, which is adapted to be engaged by the end of the

outer hub plate so as to positively prevent outward movement of the disk on the spindle. This head 8 is provided with an arcuate shield 9 which may be formed integrally with the head or secured thereon, this shield projecting inwardly about the upper portion of the outer end of the hub plate so as to provide a dust shield to prevent entry of dust and grit into the bearings of the disks. The inner end portion of spindle 6 is reduced to provide an annular shoulder or seat for a wearing element or washer 10 which is seated about the reduced neck 11 of the spindle and secured thereon by a cotter pin 12 inserted through this neck. The inner end of the hub plate is also reduced and exteriorly threaded to receive a dust cap 13 screwed thereon inclosing the washer 10 and neck 11 of the spindle so as to effectively prevent entry of dust or grit into the bearings. The disk is thus supported upon its standard so as to be freely rotatable thereon and may be readily removed when required, the bearing surfaces for this disk being effectually protected from dust and grit while being readily accessible for lubrication, repairs or other purposes.

The lower standard section 7 is provided with an upper cylindrical socket member 14, which is adapted to receive the lower cylindrical portion of an upper or attaching standard section. The upper portion 16 of this standard section is rectangular in cross section, and it is adapted, when applying disks constructed in accordance with my invention to the shovel arms of the cultivator, to be inserted in a socket member 17 of the cultivator, as shown in Fig. 1 of the drawing. Socket members of the construction shown are used to secure shovels to the shovel arms of a cultivator. In Fig. 1, the socket member 17 is shown secured to a fragmentary portion 7 of a cultivator shovel arm. The socket is provided with a set screw 18 by means of which the arm 16 may be secured firmly in position. It will be understood, that, if preferred, the arms may be secured directly to the shovel arms by bolting instead of employing the socket member, as is sometimes done. Also, this shovel arm may be either straight or curved depending upon the type of cultivator in connection with which the attachment is to be used. The socket member 14 which receives the lower portion 15 of the upper standard sections 16 is provided with an outwardly ex-

tending boss 19 which is centrally bored and threaded to receive a set screw 20 by means of which the standard section 7 may be secured to the upper standard sections so as to be adjusted vertically thereon, or about the upper standard section so as to vary the angle of the disk to the line of movement of the cultivator. This permits ready adjustment of the disk both vertically and angularly to suit conditions. If preferred, in cultivators employing shovel standards of cylindrical shape, the upper standard section may be omitted and the lower standard section secured directly upon the shovel standard, the shovel being detached therefrom. My improved standard renders it possible to quickly and readily convert a shovel cultivator of standard construction into a disk cultivator, the disks of which may be readily adjusted to suit conditions. Also the disks may be readily applied to a cultivator of standard construction without necessitating any changes in the construction of the cultivator itself and the disks themselves do not have to be of special construction to be used in connection with any particular cultivator such as is now the case.

It will be evident that there may be slight changes in construction and arrangement in the different parts of my invention without

departing from the field and scope of the same, and I intend to include all such variations, as fall within the scope of the appended claim, in this application in which a preferred form only of my invention is disclosed.

Having thus described my invention, what I claim is:—

A cultivator attachment comprising a standard having an upper section provided with an upper portion rectangular in cross section and a lower portion circular in cross section, a lower section having a tubular upper portion slidably mounted upon the lower portion of the upper section, means carried by the tubular portion of the lower section and engaging the lower portion of the upper section to releasably hold the lower section in a vertically adjusted position, the lower portion of the lower section being bent to provide a spindle, a head mounted upon the spindle, a shield mounted upon the head, and a disk rotatably mounted upon the spindle.

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

JAMES W. RUNYANS.

Witnesses:

HARRY W. FIELDING,
BOYD B. HORSMAN.