No. 848,291. PATENTED MAR. 26, 1907.

S. E. DAVIS.

SCRAPER FOR DISK DRILLS.

APPLICATION FILED JULY 23, 1906.

Fig. 1.

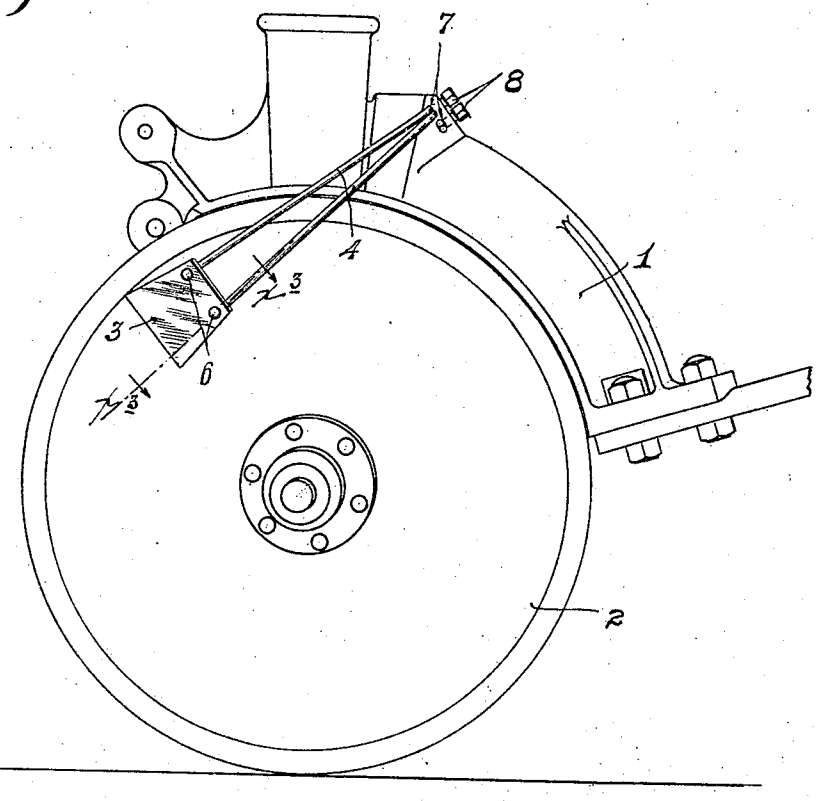


Fig. 2.

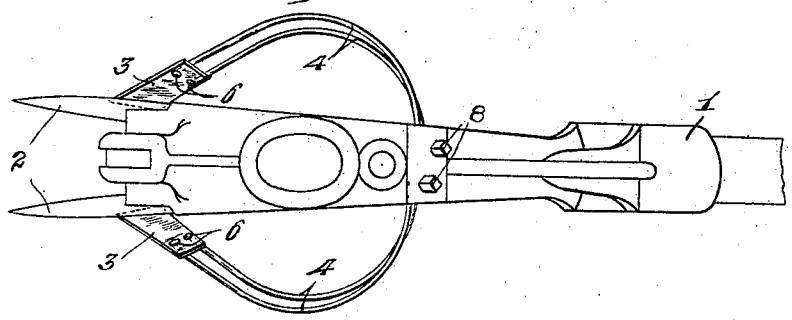
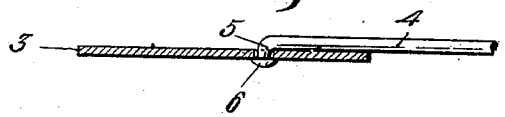


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

SPENCER E. DAVIS, OF MINNEAPOLIS, MINNESOTA.

SCRAPER FOR DISK DRILLS.

No. 848,291. Specification of Letters Patent. Patented March 26, 1907.

Application filed July 23, 1906. Serial No. 327,262.

To all whom it may concern:

Be it known that I, SPENCER E. DAVIS, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Scrapers for Disk Drills; 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.

My invention has for its object to provide an improved scraper for drill-disks; and to this end it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in side elevation, showing a disk attachment for a disk drill and showing one of my improved scrapers applied thereto. Fig. 2 is a plan view of the parts shown in Fig. 1, and Fig. 3 is a detail taken in section approximately on the line x^3 x^3 of Fig. 1.

The numeral 1 indicates the boot, and the numeral 2 the disks, of a disk-drill attachment of the usual or any suitable construction.

The improved scraper comprises a flat scraper-blade 3 and a pair of spring supporting rods or arms 4. Preferably and as shown these spring rods or arms 4 are separated from end to end—that is, they are independent rods—but they may be integrally formed at their upper end portions, if desired. The said spring-arms 4 at their free ends are bent laterally, as at 5, and are passed through perforations in the scraper-blade 3 near the edges thereof. The outwardly-projecting ends of the said end portions 5 are upset or riveted at 6 to prevent the said ends from being separated from the said scraper-blade. The arms or rods 4 are of spring metal, preferably spring-steel, and their upper ends are brought together and are inserted within a socket 7, formed, as shown, on the segmental portion of the boot 1.

In a disk attachment employing two disks two scraper devices will of course also be employed, and in this instance the boot 1 is preferably formed with two sockets 7, one for each scraper, and set-screws 8 are passed one through each of the sockets to impinge upon and hold the respective scraper-supporting arms or rods 4.

The tension of the spring-arms 4 is such that it will yieldingly force the edge of the scraper-blade 3 against the outer portion of the respective disks 2. By reference particularly to Figs. 2 and 3 it will be seen that the free ends of the arms 4 are passed along the inner surface of the scraper-blade, so that in the act of pressing the lower edge of the scraper-blade against the disks the upper edges of the said scrapers are pressed against the said arms at points considerably distant from the rivets 6. This arrangement gives a good leverage to the connection between the arms and blade.

The two spring-arms 4, as is evident, are capable of independent yielding action, and as they are attached to the scraper-blade on opposite sides of its longitudinal center it follows that the scraper may rock laterally, as well as yield bodily, to adapt itself to all irregularities in the movements of the disks. Otherwise stated, the scraper-blade 3 is free for substantial universal movement, and is thereby adapted to follow any irregularities in the movements of the coöperating disk.

The improved scraper above described may be very cheaply constructed and when applied for the purposes had in view is extremely efficient and is not likely to be broken or get out of order. The said scraper was especially designed and is particularly adapted for use as an outside scraper for drill-disks; but it is nevertheless capable of uses in other places for scraping the surfaces of rotary parts.

What I claim is—

1. A scraper of the kind described, comprising a scraper-blade, and a pair of spring-arms attached thereto on opposite sides of the longitudinal center thereof, substantially as described.

2. A scraper of the kind described comprising a scraper-blade 3, and a pair of curved spring arms or rods 4 having bent ends 5 passed through perforations formed in said blade inward of its rear edge and on opposite sides of its longitudinal center, the said ends 5 being upset or riveted, substantially as described.

3. The combination with a boot and a disk journaled thereto, of a scraper comprising a scraper-blade and a pair of spring-arms, the said spring-arms at their free ends, being at-

tached to said scraper-blade on the opposite sides of its longitudinal center, the other ends of said spring-arms being attached to said boot and said spring-arms serving to press said scraper-blade against said disk, substantially as described.

4. The combination with a boot and a disk journaled thereto, of a scraper comprising a scraper-blade 3 and curved spring-arms 4, the free ends of said arms being passed along the inner surface of said scraper-blade and terminating in laterally-bent ends 5 that are passed outward through perforations in the opposite sides of said blade, and are riveted or upset at 6, the other ends of said arms 4 being secured to said boot, substantially as described.

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

SPENCER E. DAVIS.

Witnesses:
MALIE HOEL,
F. D. MERCHANT.