J. B. KIRK.

SCRAPER.

APPLICATION FILED JULY 2, 1920.

1,371,792. Patented Mar. 15, 1921.

Fig. 1.

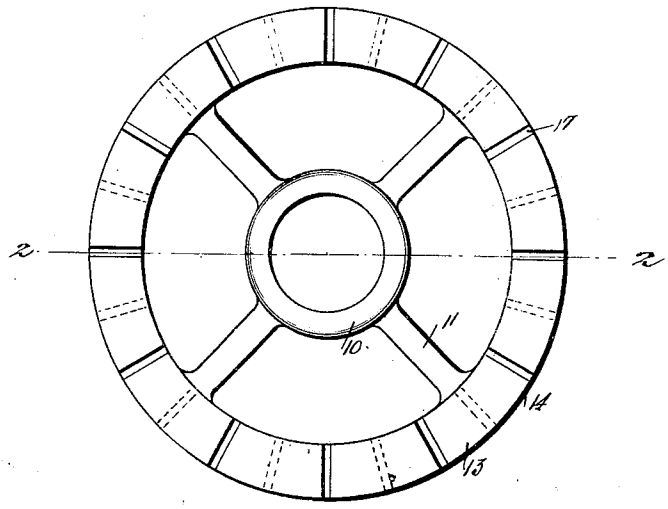
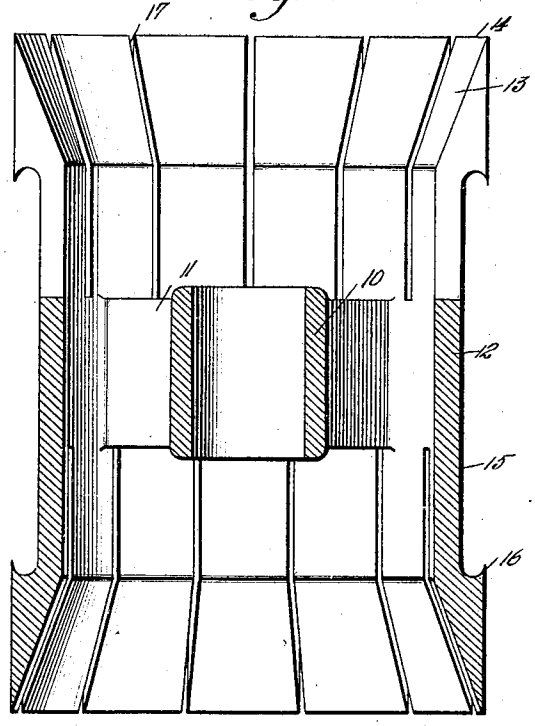


Fig. 2.



WITNESSES

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SCRAPER.

1,371,792. Specification of Letters Patent. Patented Mar. 15, 1921.

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To all whom it may concern:

Be it known that I, JAY BUCHAN KIRK, a citizen of the United States, and a resident of Iola, in the county of Allen and the State of Kansas, have invented a new and Improved Scraper, of which the following is a full, clear, and exact description.

This invention relates to a scraping device adapted to remove carbon and other deposited sediment from the inside of tubular pipes.

The object of this invention is to provide a cylindrical scraper which will be very effective in cutting carbon and other deposits from the inside of distilling pipes. Another object of this invention is to provide a cylindrical scraper which will resiliently bear against the inside surface of the distilling pipes and will readily adjust itself to any irregularities in said surface.

Reference is to be had to the accompanying drawing forming a part of this specification, in which it is understood that the drawing illustrates only one form of the invention, and in which—

Figure 1 is a top view of the scraper.

Fig. 2 is a sectional view through the scraper on the line 2—2 of Fig. 1.

Referring to the accompanying drawing by numerals, 10 indicates a collar which may be secured to any reciprocating means. A plurality of radiating spokes 11 are formed on said collar, the outer ends of said spokes being formed integral on a cylindrical scraper 12. The inside of each end of said cylinder 12 is provided with bevels 13 so arranged as to form sharp edges or knives 14 at each end of the cylinder which bear directly on the inside surface of the distilling pipes. Between the bevels 13 the outside surface of the cylinder 12 is provided with an offset section 15 so constructed that sharp edges or knives 16 are formed which also bear against the inside surface of the distilling pipes and cut away any deposit as said scraper is reciprocated in said pipe.

In order to cause the scraper to press outwardly against the inside wall of the pipe and to conform with any slight irregularity in said pipe as said scraper is reciprocated, I provide radial slots 17 in each end of the cylinder 12 parallel to the axis of said cylinder, said slots dividing each end of the cylinder into sectors or arcuate sections. The slots 17 are alternated at each end of the cylinder 12 so that the unscraped part left by the slots 17 on one end of the scraper will be scraped by the sectors on the other end of said cylinder. The cylinder 12 preferably has a diameter greater than the diameter of the pipe which it fits so that the segments must be slightly sprung inwardly in order to insert said cylinder in the pipe and the scraper is made of a resilient material for this purpose.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself precisely to the details herein described, since, manifestly, the same can be considerably varied without departing from the spirit of the invention as defined in the appended claim.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A tube cleaner comprising a cylinder with a spaced interior collar, said cylinder having beveled and slotted ends forming resilient cleaning sectors, the slots at one end being staggered with relation to those at the opposite end.

JAY BUCHAN KIRK.