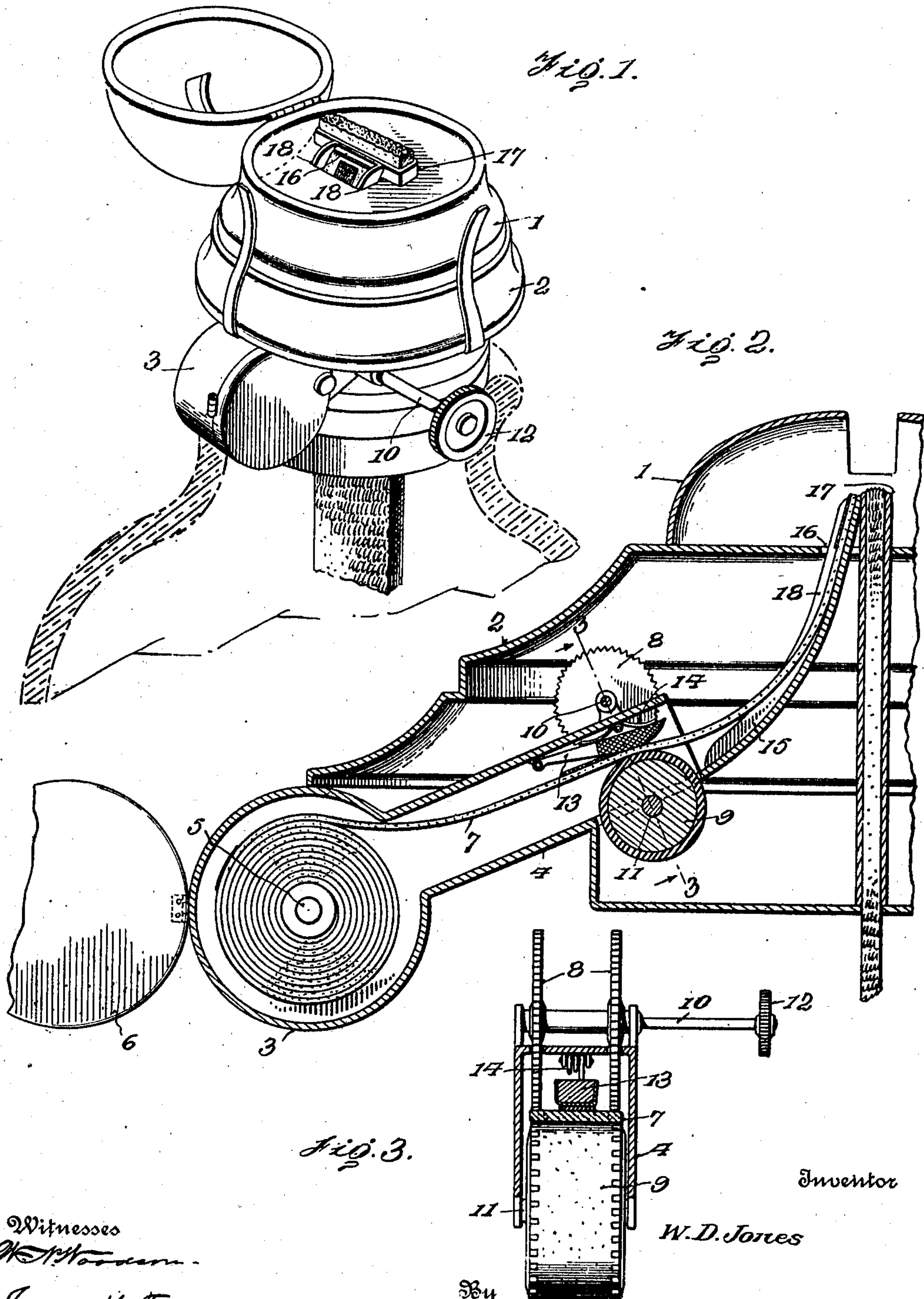


W. D. JONES.
LAMP IGNITER.
APPLICATION FILED MAY 3, 1910.

970,715.

Patented Sept. 20, 1910.



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UNITED STATES PATENT OFFICE

WILLIAM D. JONES, OF GREELEY, COLORADO.

LAMP-IGNITER.

970,715.

Specification of Letters Patent. Patented Sept. 20, 1910.

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To all whom it may concern:

Be it known that I, WILLIAM D. JONES, citizen of the United States, residing at Greeley, in the county of Weld and State of Colorado, have invented certain new and useful Improvements in Lamp-Igniters, of which the following is a specification.

This invention comprehends certain new and useful improvements in lamps and attachments therefor, and relates particularly to improvements in that type of igniting device which is covered by Letters Patent of the United States, issued to me December 28, 1909, No. 944,875.

The present invention aims to simplify and render more effective the means for feeding and igniting an ignitable strip which is contained within a suitable casing, the strip being in the form of a roll and being fed from the casing to the wick of the lamp or lantern, the strip being ignited in its passage from the casing to the wick.

With this and other objects in view, the invention consists in certain constructions, arrangements and combinations of the parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view illustrating one application of my improved lamp igniting device; Fig. 2 is an enlarged longitudinal sectional view thereof; and, Fig. 3 is a view on a still larger scale, being a transverse section taken on the line 3—3 of Fig. 2, looking in the direction of the darts.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Referring to the drawing, the numeral 1 designates the burner cap and 2 the burner base of a kerosene lamp, these parts being selected for the purpose of illustration only as it is to be understood that my invention is applicable to burners of any conventional type or design.

My improved igniting device comprises a casing 3 which is secured in any desired way to the burner base 2, preferably underneath the lower, outer edge thereof, and which is connected to a tube 4 which is mounted in the base, said tube being preferably substantially rectangular in cross section.

The casing 3 is provided with a side opening for the introduction of the roller of ignitable substance, said roller being mounted upon a centrally disposed shaft 5, and the side opening of the casing being then closed, as by a cover 6, which is secured to the casing in any desired way and maintained in closed position by any desired means. The ignitable strip, designated 7, is fed from the casing 3 and through the tube 4 and passes outwardly and upwardly between upper and lower feed rollers, designated respectively, 8 and 9, secured respectively to shafts 10 and 11 which extend transversely, as shown, and are journaled in the tube 4 at the end thereof, the said feed rollers preferably projecting partly within and partly outside of the tube. In the present embodiment of the invention, the feed roller 8 is toothed, as shown, and is formed with a middle recess, practically producing two distinct cog wheels, although it is to be understood that the invention is not limited in this regard, but that the said roller may be recessed in any desired way and the two cog wheels may be either distinct elements secured to the same shaft 10, or integrally or otherwise directly connected together. The lower feed roller 9 is preferably provided with a rubber peripheral cover or lining, whereby it will have a tendency to hold the ignitable strip and acting properly thereon to feed the same from the top, while at the same time the surface will be yieldable. Either one or both of the feed rollers may be turned in any desired way, and for the purpose of illustration, I have shown the shaft 10 of the upper roller 8 as extended laterally and provided with a milled finger piece by which the device is actuated.

The space between the two toothed portions of the upper feed roller 8 accommodates a scratching element 13 which may be formed of any desired substance covered with sand paper or other suitable roughened or friction material. This scratching element 13 is in the nature of a rocker, and is rounded on its lower edge, as shown, and is hinged at one end to the top of the tube, as indicated at 13^a.

14 designates a spring which is interposed between the scratching element and the adjacent wall of the tube so as to provide an upwardly yielding movement of the scratching element as the ignitable strip 7 passes between it and the lower feed roller 9. The

shape of the scratching element provides that in case the ignitable portion of the strip passes over the scratcher and does not ignite, the actuating cog may be given a quick turn backward and then outward again until the strip is ignited.

The bottom wall of the tube 4 is extended inwardly and upwardly, as shown, constituting a chute 15 which leads upwardly to and communicates with an opening 16 formed in the ordinary wire gauze top of the burner base in proximity to the burner 17. The upper end of this chute, from the wire case top of the burner itself to the wick or top of the burner 17, may be straight, if desired. Preferably, the side edges of the chute 15 are formed with retaining fingers 18 so as to prevent the strip from becoming displaced in its forward movement to the wick.

From the foregoing description in connection with the accompanying drawings, it will be understood that the coil or roller of ignitable material, (which is provided at intervals with protuberant ignitable heads, as will more fully appear by reference to my prior patent above referred to) is mounted within the casing 3 and one end thereof is passed upwardly and inwardly between the upper and lower feed rollers 8 and 9 which are spaced apart a very slight distance and underneath the scratching element 13. By turning either one or both of the feed rollers, the strip will be fed inwardly and upwardly and as soon as one of the ignitable heads arrives at the scratching element, it will be passed therebetween and the lower roller 9 and ignited by the abrasive action, being finally passed in lighted condition to the wick.

While the accompanying drawing shows the preferred embodiment of my invention, it is to be understood that the invention is

not limited to the construction shown, but that various changes may be made in the details of construction, arrangements and proportions of the parts without departing from the scope of the invention as defined in the appended claims.

Having thus described the invention, what is claimed as new is:

1. A lamp igniting device, comprising a casing, juxtaposed feeding rollers arranged to feed an ignitable strip from the casing, one of said rollers being formed with a recess, and a scratching element mounted in said recess.

2. A lamp igniting device, comprising a casing, juxtaposed feeding rollers adapted to feed the ignitable strip from the casing, one of said rollers being recessed, and a yielding scratching element mounted in said recess and bearing upon the other roller.

3. A lamp igniting device, comprising a casing, juxtaposed feeding rollers adapted to feed an ignitable strip from said casing and one of said rollers being formed with a recess, and a pivoted scratching element mounted in said recess and bearing upon the other roller.

4. A lamp igniting device, comprising a casing, juxtaposed feeding rollers adapted to feed an ignitable strip from said casing, one of said rollers being formed with a recess, and the other roller having a yielding periphery, and a scratching element yieldingly mounted in said recess and adapted to bear against said yielding periphery.

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

WILLIAM D. JONES. [L. s.]

Witnesses:

V. E. KEYES,
F. C. PRESSLY.