S. HERLINGER.

IGNITER.

APPLICATION FILED JAN. 17, 1912.

**1,033,801.** Patented July 30, 1912.

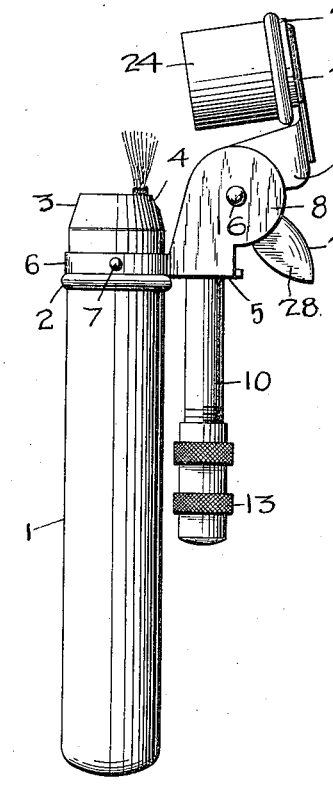


Fig. 1.

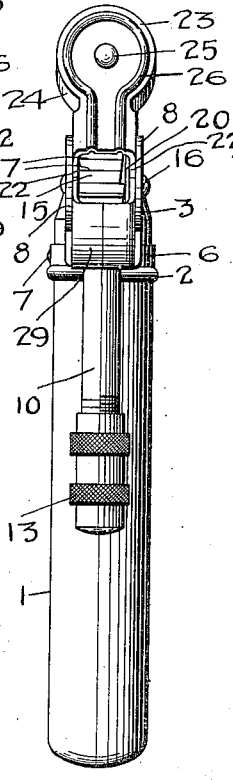


Fig 2

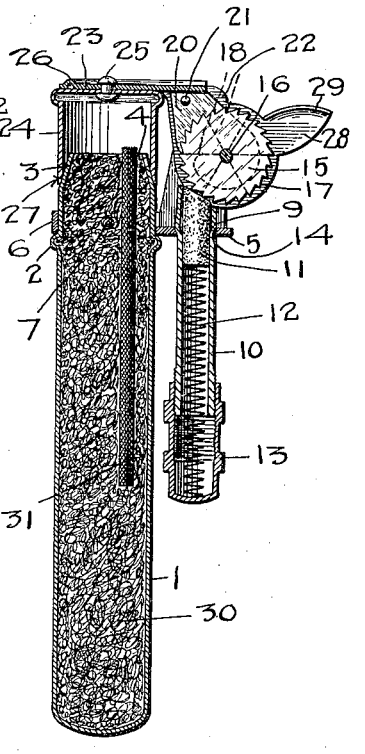


Fig. 3.

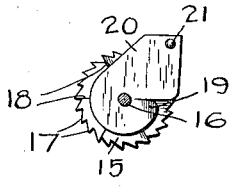


Fig. 4.

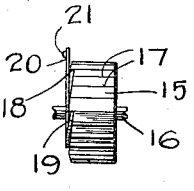


Fig. 5.

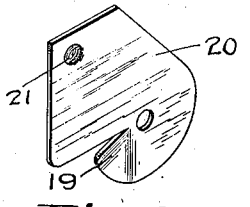


Fig. 6.

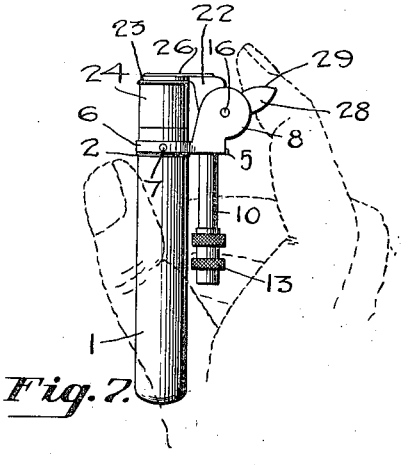


Fig. 7.

WITNESSES

Geo. A. Lemmon

John C. Kopf

INVENTOR

SIEGFRIED HERLINGER

BY J.M. Wilson

ATTORNEY

# UNITED STATES PATENT OFFICE.

SIEGFRIED HERLINGER, OF NEW YORK, N. Y.

## IGNITER.

1,033,801. Specification of Letters Patent. Patented July 30, 1912.

Application filed January 17, 1912. Serial No. 671,596.

*To all whom it may concern:*

Be it known that I, SIEGFRIED HERLINGER, a subject of the Emperor of Austria-Hungary, residing in the city, county, and State of New York, have invented a new and useful Igniter, of which the following is a specification.

My invention relates to igniters of the pocket type, and it has been my special object to devise a construction, which can be manufactured at a low cost, can be operated with one hand, will weigh very little and can be made of very few parts.

I am aware of the previous patents granted upon pocket igniters, in which it has been the custom to include in a casing all the mechanism and parts necessary to provide a flame, but these various devices are complicated, expensive to make, require the use of both hands of the operator, and are difficult to repair when they get out of order.

My invention is more fully described in the following specification and illustrated in the drawings herewith.

Figure 1 is a side elevation of my device shown in an operated position. Fig. 2 is an end elevation of the same. Fig. 3 is a longitudinal sectional view of the device when closed. Fig. 4 is a detail view of the ratchet and pawl mechanism which coöperates to produce the spark. Fig. 5 is an end view of the same. Fig. 6 is an enlarged detail perspective view of the pawl. Fig. 7 is a view showing the method of operating my device.

In the drawings, 1 is the container portion of the device provided with a bead 2, a tapered top portion 3, which is cut away at 4 to expose the wick 31 to the spark. In the container I have found it advantageous to use an absorbent material 30 which can be saturated with a suitable liquid such as benzin, gasolene, alcohol or the like. A table member 5 is secured to the container 1, by the member 6, which encircles the container and is held in position by the rivet 7 just above the bead 2. The table member 5 is also provided with upwardly extending bracket arms 8, and an opening 9, (see Fig. 3) for the admission of the tube 10 which contains the sparking material 11 and the spring 12, one end of which bears against the sparking material 11, the other end of the spring bearing against the inner side of a knurled cap 13. This cap is internally threaded to cooperate with threads on the outer circumference of the tube, to admit of varying the tension of the said spring against the sparking material and holding the latter in contact with the wheel 15. This wheel is mounted on a spindle 16 carried in the upright brackets 8, and is provided on its periphery with serrations 17 which strike sparks from the material 11 when the wheel is revolved. On one of the faces of the wheel 15, are radial teeth 18, intended to cooperate with the lip 19 on the thin plate 20. This plate is revolubly mounted on the spindle 16 and is made of a somewhat flexible material, such as spring steel. The action of the lip 19 with the teeth 18 on the wheel 15, constitutes a ratchet and pawl movement. The plate 20 has in its upper portion a slight protuberance 21 which fits snugly in a dent in one of the arms 22 of the cap carrying member which may be made of one piece of stamped out metal, one end extending as at 23 and forming a plate to which the cap 24 is fastened by the rivet 25. Added rigidity may be given to the plate portion 23 by forming a slight bead 26 in the material. The lower interior portion of the cap may be tapered as at 27 to form a tight closure with the tapered portion 3 of the container. The arms 22 are also revolubly mounted on the spindle 16 and are provided with ears 28 in turn bent over to form the finger piece 29.

In operating my device the initial position of which is shown in Fig. 7 the finger piece 29 is depressed, this movement lifting the cap 24 by means of the arms 22 and the plate 23 and also revolving the wheel 15 by means of the pawl plate 20 which engages by its projecting lip 19, the radial ratchet teeth 18. As the sparking material 11 is held by the spring 12 in close contact with the serrated wheel 15, sparks are thrown through the cut out portion 4 of the container and ignite the wick. I have found that this method of throwing up the cap and revolving the serrated wheel against the sparking material is much more effective than simply lifting the cap by hand from the top of the container, as the latter method does not cause the wheel to revolve quickly enough to strike a spark. This form of mechanism also minimizes the wear upon the sparking material, as the pressure of the latter against the serrated wheel, provided by the

spring 12, prevents the wheel from rotating when the cap is closed down again upon the container top.

I claim:

1. In a device of the character described the combination of the following elements; means for creating a combustible vapor comprising a liquid container, a liquid adapted to be vaporized, an absorbent member adapted to vaporize said liquid; and means for igniting the said vapor comprising a member secured to the said liquid container and provided with a wheel revolubly mounted therein, a sparking material held in contact with said wheel, a cap member revolubly mounted thereon and provided with a finger piece whereby the said cap member may be manually operated to rotate the said wheel against the said sparking material and create a spark to ignite the said vapor.

2. In a device of the character described, a liquid container provided with means adapted to create a vapor; and a member secured to the said container and provided with means adapted to create a spark comprising a sparking member, a wheel held in contact with said sparking member and means for revolving said wheel comprising a revolubly mounted cap member provided with a finger piece whereby the said cap member may be manually operated to rotate the said wheel against the said sparking member.

3. In a device of the character described a liquid container provided with means adapted to create a vapor; and a spark creating member secured to the said container comprising a table member provided with upwardly extending arms having a transverse spindle and an opening in its bottom surface, a tube adapted to be secured in the said opening and provided with a sparking material and a spring adapted to engage with said sparking material, means for adjusting the tension of said spring, a wheel revolubly mounted on the said spindle and provided with radial teeth, and a cap member revolubly mounted on the said spindle and provided with means whereby the said cap member may be manually operated to rotate the said wheel and create a spark to ignite the said vapor.

4. In a device of the character described, means for creating a combustible vapor comprising a liquid container, a liquid adapted to be vaporized outside of said container, an absorbent member adapted to vaporize said liquid outside of said container; and means for igniting said vapor, comprising a table member secured to the outside surface of said liquid container, upwardly extending arms upon the said table member, having a plate member and a transverse spindle, an opening in the lower surface of said table member, a downwardly extending tube adapted to be carried in the said opening, a sparking material in the upper end of said tube, a spring bearing with one end against the said sparking material and with the other end against the inside of the lower end of said tube, means for varying the tension of said spring, a wheel revolubly mounted upon the said spindle in the said upwardly extending arms, radial teeth upon the side of said wheel, a plate revolubly mounted upon said spindle, a cap mounted upon the plate member of the upwardly extending arms and adapted to close the top of the said liquid container, ears upon the said upwardly extending arms, and a finger piece upon the said ears.

In witness whereof, I have hereunto set my hand this 16th day of January, 1912.

SIEGFRIED HERLINGER.

Witnesses:

ANTHONY F. ARCOME,

AGNES L. CLUNE.