Jan. 9, 1923.

V. T. JULIN.

1,441,930.

GIMLET.

FILED NOV. 14, 1921.

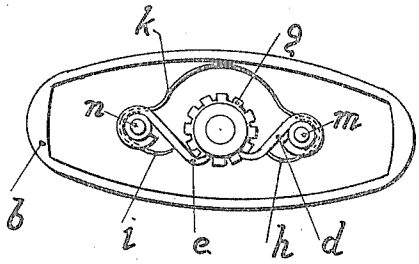



Fig. 1.

Fig. 2.

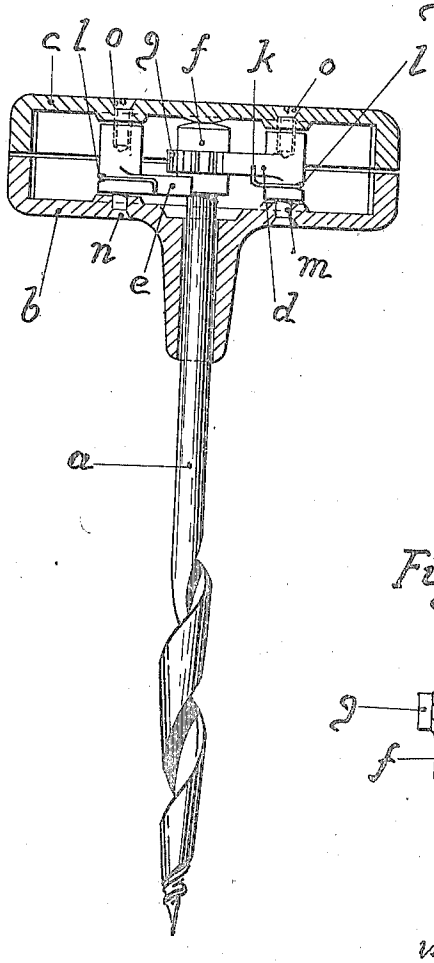
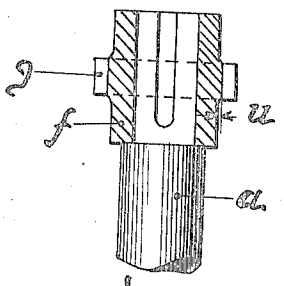



Fig. 3.




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# UNITED STATES PATENT OFFICE.

VICTOR TEODOR JULIN, OF DJURSHOLMS-DANDERYD, SWEDEN.

## GIMLET.

Application filed November 14, 1921. Serial No. 514,996.

*To all whom it may concern:*

Be it known that I, VICTOR TEODOR JULIN, citizen of Sweden, residing at Djursholms-Danderyd, Sweden, have invented certain new and useful Improvements in Gimlets (for which I have filed application in Sweden April 5th, 1919, No. 1566/1919, and in Germany June 7th, 1921, No. J. 21630/38e), of which the following is a specification.

In ordinary gimlets hitherto in use, the handle is rigidly connected with the spindle, and after having been turned about 180° the handle must be released and thereafter grasped again. On the contrary the spindle of the present invention is movably journaled in the handle, and a coupling for moving the spindle to the right and to the left is provided in the handle, which enables the gimlet to be driven forwards and backwards by turning the handle to and fro without releasing said handle. The present gimlet is especially favourable in cases, when the workman has only one hand free to manipulate it, while his other hand must be used for holding himself, say, to a telegraph post. Further this gimlet does not tire the hand and brachial muscles.

On the accompanying drawing Fig. 1 is a vertical section of the gimlet, Fig. 2 is a plan of the gimlet, showing the upper half of the hollow handle removed, and Fig. 3 is a detail on a larger scale.

The spindle *a* is loosely mounted and axially slidable in the hollow handle, which is made in two parts *b* and *c*. Within the handle a double coupling is mounted having a pawl *d* for movement to the right and a pawl *e* for movement to the left of the spindle, each of said pawls engaging a ratchet wheel *g* on the spindle, when a pressure or a pull is applied on the gimlet.

A cylinder *f* on the upper end of the spindle *a* serves as a coupling, having a length of about three times the width of the pawls, and on the middle part of said cylinder *f* the ratchet wheel *g* is formed. Spring arms *h* and *i* press the pawls *d* and *e* towards the cylinder *f*. A steel wire *k* may serve as spring, said wire bearing with its middle part on the wall of the handle, and being secured in notches *l* in the hubs of the pawls.

To prevent the pawl which is not in engagement with the ratchet, from engaging it, the ratchet wheel is made of considerably less width than the vertical distance between the pawls. Thus, before it can move into engagement with one pawl, it must move out of engagement with the other.

The pawls *d* and *e* are mounted on bolts *m* and *n*, riveted to the lower part *b* of the handle, and screws *o* and *p* in the upper part *c* of the handle secure said upper portion in place.

The gimlet works in the following manner. When pressing axially upon the handle the upper part of said handle will abut against the upper end of the bore spindle, whereby the coupling cylinder *f* takes such a position in relation to the pawls, that the pawl *d* will engage the ratchet wheel *g*, whereas the pawl *e* slides over the even part of the cylinder *f*. When the gimlet is turned back the lower part of the handle will be drawn towards the coupling cylinder, whereby the pawl *e* will engage the ratchet wheel *g* whereas the pawl *d* slides over the cylinder *f*. When manipulating the gimlet the handle need not to be released.

The invention is also applicable to cork screws.

Having now particularly described my invention and set forth the manner in which it may be performed what I claim is:—

1. A gimlet comprising a sectional handle having upper and lower parts, means for separately connecting said parts, a spindle extending into said handle and both slidably and rotatably mounted within said lower part, driving pawls pivotally mounted within said handle, and a ratchet carried by said spindle and adapted when the spindle is in the retracted position, to be engaged by one of said pawls to drive said spindle, while also being adapted, when the spindle is in the projected position, to be engaged and driven by the other pawl, to reverse the spindle.

2. A gimlet comprising a sectional handle having upper and lower parts, means for separably connecting said parts, a spindle extending into said handle and both slidably and rotatably mounted within said lower part, driving pawls pivotally mounted within said handle, a ratchet carried by said spindle and adapted when the spindle is in the retracted position, to be engaged by one of said pawls to drive said spindle, while also being adapted when the spindle is in the projected position, to be engaged and driven by the other pawl, the disengaged pawl, in each instance running free on said spindle.

3. A gimlet comprising a sectional handle

having upper and lower parts, means for separably connecting said parts, a spindle extending into said handle and both rotatably and slidably mounted in said lower part, driving pawls pivotally mounted within said handle, a ratchet carried by said spindle and adapted when the spindle is in the retracted position, to be engaged by one of said pawls to drive said spindle, while also being adapted when the spindle is in the projected position, to be engaged and driven by the other pawl, in reversing, and a spring within said handle and engaged thereby and engaging and actuating said pawls to operative position.

4. A gimlet comprising, a sectional handle having upper and lower parts, means for separably connecting said parts, a spindle extending into said handle and both rotatably and slidably mounted in one of said parts, driving pawls mounted within said handle, one of said pawls being considerably nearer the bottom of the lower part than the other, and a ratchet carried by said spindle and adapted when the spindle is in the retracted position, to be engaged by that pawl which is most distant from the bottom of the lower part, while also being adapted, when the spindle is in the projected position, to be engaged and driven by the pawl nearest the bottom of the lower part, in reversing.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

VICTOR TEODOR JULIN.

Witnesses:

WILMA C. ERIKSON,

LILIAN BERGVON LUEDE.