

(No Model.)

E. J. WELLS.

OILER.

No. 266,237.

Patented Oct. 17, 1882.

Fig 1

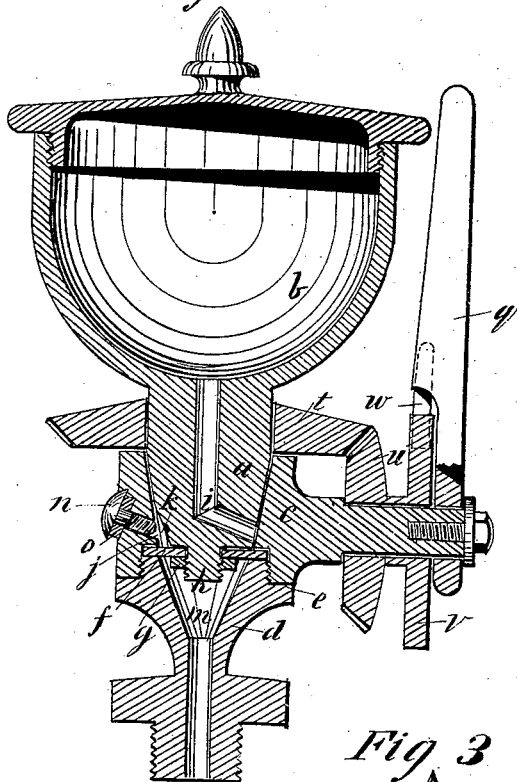


Fig 2

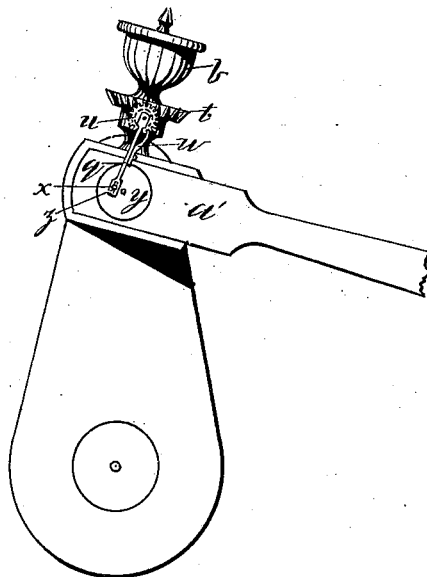


Fig 3

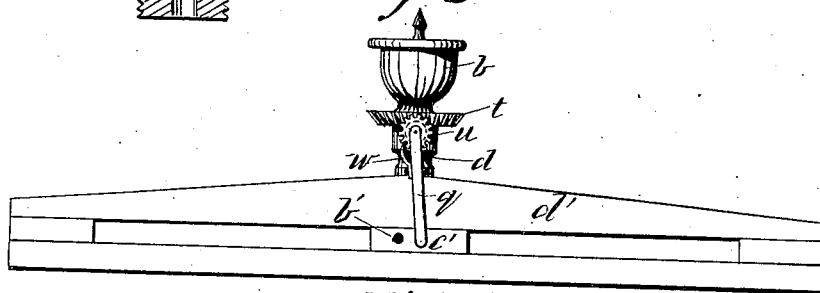
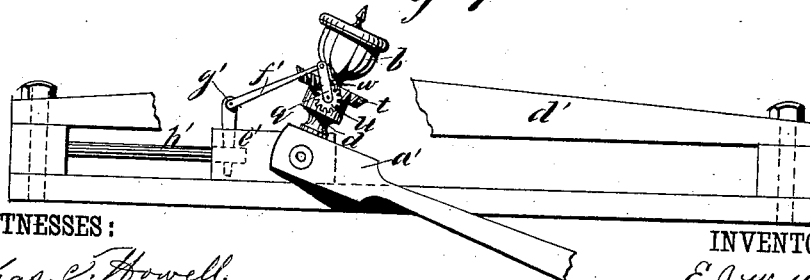


Fig 4



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OILER.

SPECIFICATION forming part of Letters Patent No. 266,237, dated October 17, 1882.

Application filed August 16, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDGAR J. WELLS, of Hague, in the county of Warren and State of New York, have invented a new and Improved Oiler, of which the following is a full, clear, and exact description.

My invention consists of the cup which contains the oil, contrived to revolve in the stem by which it is attached to the supporting device, and provided with means for slowly revolving therein to supply the oil by measures, the delivery of which is interrupted by the rotations of the cup and the quantity governed by a variable capacity of the measuring-cavity, or it may be by the speed of the cup's motion, to be adapted to the requirements of the case.

Instead of rotary motion for the cup, an oscillatory motion may serve as well, and the same principle may be carried out by the contrivance of the apparatus to work by a reciprocating motion.

The means for effecting the movements of the cup may be varied at will and according to the circumstances of the case or the nature of the device to which the oiler is to be applied, all as hereinafter described.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of an oiler constructed according to my invention and provided with a ratchet mechanism, which I prefer for turning the cup. Fig. 2 is a side elevation of my improved oiler applied to a crank-pin; the motion for working the ratchet being obtained from a secondary crank-pin on the end of the main pin. Fig. 3 is a side elevation of the oiler applied to the motion-bars for oiling the cross-head slides of a steam-engine or other cross-head, the motion being obtained from a pin on the slide to work the ratchet-lever; and Fig. 4 is a side elevation of the oiler applied to a connecting-rod for oiling the cross-head connection, the motion in this case being obtained by the oscillations of the oiler, the ratchet-lever being connected to the cross-head or key of the piston-rod connection.

The stem *a* of the cup *b* is fitted to revolve

in the socket *c* of the stem *d*, by which the oiler is attached to the device to be oiled, the said socket *c* and the stem *d* being connected together by a joint, *e*, in which the spider *f* is located, to hold the stem *a* in the socket *c* by a cap or nut, *g*, screwed on the stud *h* below the spider, and to be screwed up from time to time, as may be required, for tightening the joint between *a* and *c*. The oil-passage *i* is made to discharge through the side of stem *a*, so that it can only deliver oil when it passes the cavity *j* in the side wall of socket *c*. Opposite to the outlet of passage *i*, or in any part of stem *a* suitably separated from said outlet, is a flat or grooved place, *k*, which allows the oil to flow out of said cavity into the passage *m*, leading to the object to be oiled. The size of the cavity *j* is adjustable by the plug *n* and washers *o* to regulate the quantity of oil. The cup *a b* is geared with a ratchet-lever, *q*, by the wheels *t u v* and pawl *w*, to be operated in any way suitable to the case in hand—for instance, by the pin *x* in the end of a crank-pin, *y*, said pin working in the slot *z* of the lever *q*, the cup being in this case attached to connecting-rod *a'*; or pin *b'* on a cross-head slide, *c'*, may work the lever *q* as the slide passes the lever, the oiler being in this case attached to the upper motion-bar, *d'*; and when the oiler is attached to the connecting-rod *a'* for oiling its joint with the cross-head *c'* the lever *q* may be connected by a rod, *f'*, with the key *g'*, that secures the piston-rod *h'*. In these arrangements the cup will have intermittent rotary movements and will deliver one measure of oil to one revolution; but it will be readily understood that it may, when desired, be made to oscillate so as to bring the passage *i* and the groove *k* alternately into connection with cavity *j*. This latter arrangement may be preferred in cases where the lever *q* will be worked less frequently than in the other arrangements.

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

1. The rotary oil-cup *b*, having end-threaded stem *a* and passage *i*, in combination with a spider, *f*, a nut, *g*, a socket, *c*, and a stem, *d*, whereby the cup-stem may be revolved in the socket, substantially as described.

2. In an oiler, a cup, *b*, having a movable stem, *a*, in a socket, *c*, of the supporting-stem *d*, said stem *a* having the discharge-passage *i* and the groove *k*, and the socket *c*, having the cavity *j*, all arranged and operating substantially as described.
3. The combination of the oil-cup stem *a*, having lateral delivery *i* and groove *k*, a socket, *c*, having cavity *j*, and a stem, *d*, having passage *m*, as shown and described.
4. The combination, in an oiler, of a movable stem, *a*, having passages *i* and *k*, and a socket, *c*, having a cavity, *j*, said cavity *j* being variable in capacity, substantially as described.
5. The combination, in an oiler, of the movable cup *b*, stem *a*, stud *h*, nut or cap *g*, stationary socket *c*, spider *f*, and stem *d*, substantially as described.
6. The combination, with a pinion, *t*, on stem *a*, an arm on socket, *c*, and a pawl-lever, *q*, loose on said arm, of a rigidly-connected pinion, *u*, and ratchet *v*, loose on said arm, as and for the purpose specified.

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Witnesses:

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