

No. 614,880.

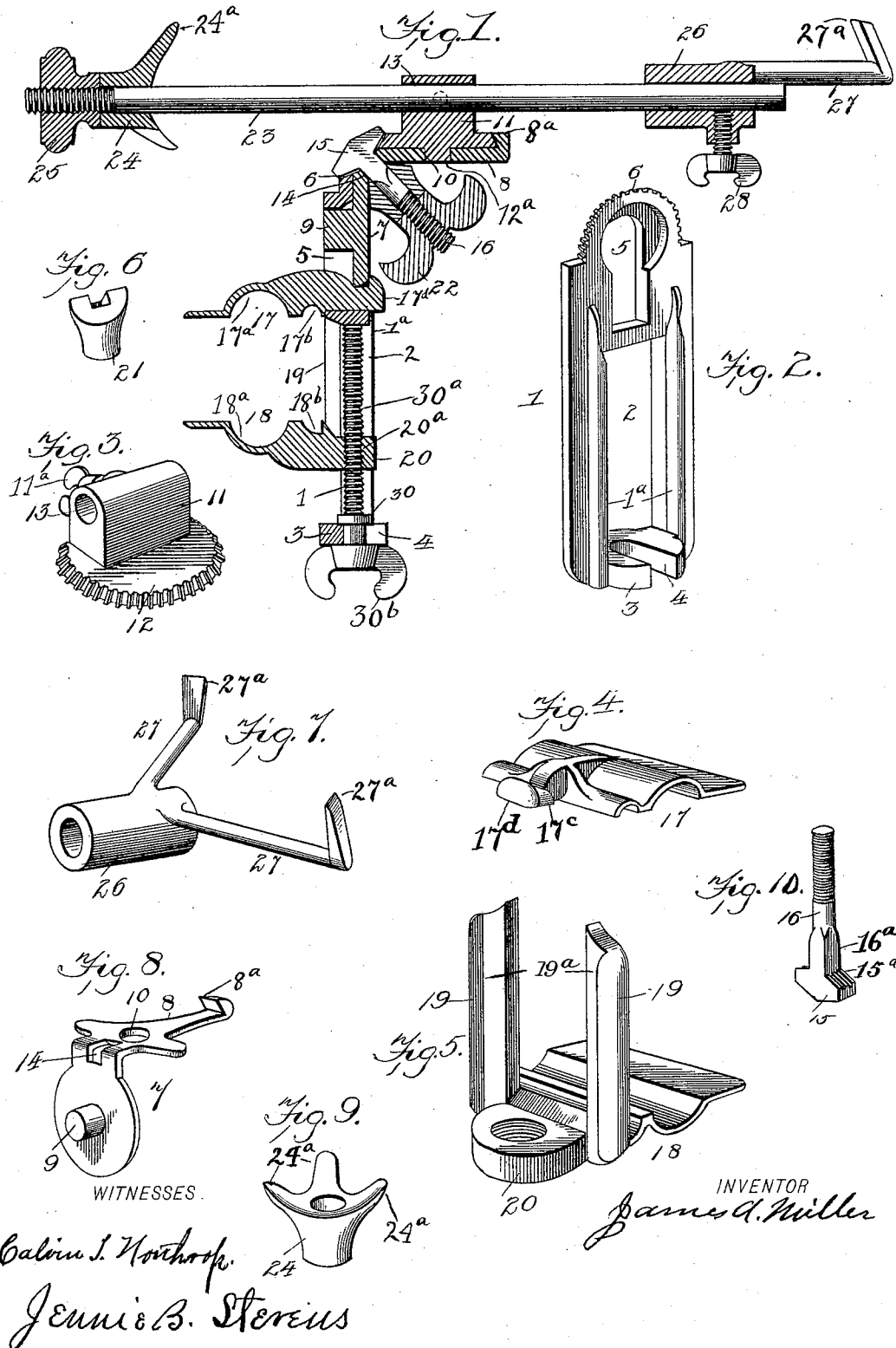
Patented Nov. 29, 1898.

J. A. MILLER.
LANTERN HOLDER.

(Application filed Nov. 15, 1897.)

(No Model.)

2 Sheets—Sheet 1.



UNITED STATES PATENT OFFICE.

JAMES A. MILLER, OF GARRETTSVILLE, OHIO.

LANTERN-HOLDER.

SPECIFICATION forming part of Letters Patent No. 614,880, dated November 29, 1898.

Application filed November 15, 1897. Serial No. 658,647. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. MILLER, a citizen of the United States, residing at Garrettsville, in the county of Portage and State of Ohio, have invented a new and useful Improvement in Lantern-Holders, of which the following is a specification.

The object of my invention is to provide a lantern-holder which will securely hold any form of lantern, which can be securely held to any convenient portion of a carriage or other vehicle, and which has various adjusting devices whereby the light in the lantern may be brought into any desired direction.

The invention consists in such features of construction and the combination of parts as will be fully described and claimed.

In order that my invention may be clearly understood, reference is to be had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a vertical section of my lantern-holder complete; Fig. 2, a perspective view of the main frame; Fig. 3, a perspective view of the rotary carrier with its carrier-lug; Fig. 4, a perspective view of the upper clamping-jaw; Fig. 5, a perspective view of the lower clamping-jaw; Fig. 6, a perspective view of the washer or fillet; Fig. 7, a perspective view of the double-armed carrier-sleeve; Fig. 8, a perspective view of the angle-plate; Fig. 9, a perspective view of the three-armed carrier-sleeve; Fig. 10, a perspective view of the bolt which holds the angle-plate and rotary carrier in the desired adjustment; Fig. 11, a perspective view of the lantern-holder complete; Fig. 12, a perspective view of a portion of the holder with a modification; Fig. 13, a horizontal section on the center of the pivot 9, and Fig. 14 a horizontal section taken between the clamping-jaws and looking downward.

The main frame 1 is a flat rectangular piece of metal having on one side the strengthening-ribs 1^a and at its upper end a semicircular extension 6, having its arc transversely serrated. The main frame 1 has at its lower end the longitudinal slot 2, which lies between the ribs 1^a, the lower end of the slot being closed by the connecting-plate 3, having the open slot 4 communicating with the slot 2.

The lower jaw 18 is provided with two par-

allel upwardly-extending guide-arms 19, having on their rear sides the guide-grooves 19^a to fit upon and to be guided by the outer front edges of the main frame 1, as clearly shown in Figs. 11, 13, and 14. This jaw is also provided with a rearward extension 20, sliding in the slot 2 and having a threaded opening 20^a to receive the adjusting-screw 30^a, swiveled in the slot 4 between the collar 30 and the shoulder of the winged operating-piece 30^b.

The jaw 17 is provided with the rearward extension, consisting of the neck 17^c and the head 17^d. The width of the head 17^d is greater than that of the slot 5, the width of neck 17^c being practically the same as that of the slot 5. The thickness of the head 17^d is the diameter of the journal-opening at the top of the slot 5. The head 17^d and neck 17^c are passed through the slot 5 and given a quarter-turn, whereby the head securely locks the jaw 17 to the frame 1, so that the jaw cannot be withdrawn longitudinally. The jaw 17 is to be pushed to the bottom of the slot 5, as shown in Figs. 1 and 11.

The jaws 17 and 18 are metallic plates standing at a right angle to the side of the main frame 1 and having on their opposing faces the rounded grooves 17^a and 18^a to receive the rounded portions of dashboards, the bows of carriage-tops, the rounded bars of bicycles, &c. Rearwardly of the grooves 17^a and 18^a are the grooves 17^b and 18^b to receive the leather strips on the front bow of a carriage-top.

The arms 19 bear against the rear edge of the jaw 17, as clearly shown in Figs. 11, 13, and 14, and prevent the jaw 18 from bending or tilting when the screw 30^a clamps the jaws to a support.

Seated in the slot 5, above the neck 17^c of jaw 17, is the journal-lug 9 of the angle-plate. The vertical part 7 of the angle-plate fits against the rear side of the upper end of the main frame 1 and is held against it by the upwardly-extending lug or flange on head 17^d, said flange lying close on the rear face of the plate 7. That portion of plate 7 below the lug 9 is semicircular, so that when the angle-plate is oscillated on the lug 9 the flange will at all times engage the rear side of the plate 7.

The horizontal portion 8 of the angle-plate

is provided at about its center with the round hole 10, which serves as a bearing for the journal-lug 11^a on the under side of the rotary carrier 12. This carrier lies upon the upper arm of the angle-plate and has its edge serrated and preferably beveled outwardly and downwardly at an angle of forty-five degrees. Its rear edge is held from rising by the undercut projection 8^a, which fits over the beveled periphery of plate 12. The angle-plate has an angular opening 14 at its angle to receive the angular portion 16^a of the clamping-bolt 16. The under portion of the bolt-head 15 of the bolt 16 is serrated to fit the serrations on the extension 6 of the main frame 1 and on the periphery of the rotary carrier 12.

Seated in the angle of the angle-plate, as shown in Figs. 1, 11, and 12, is the washer or fillet 21. (Shown in Fig. 6.) The fillet has an opening registering with the opening 14 to receive the bolt 16. A thumb-nut 22 operates the bolt 16 to cause its serrated head to engage the serrations on both the extension 6 and carrier 12 at the same time. In order that the teeth 15^a of head 15 may always engage the serrations on both the extension 6 and rotary carrier 12, the fillet 21 should not exactly fit or fill the angle formed by the two arms of the angle-plate and the bolt 16 should loosely fit in the opening 14, in order that when the head engages one set of serrations the further turning of the nut 22 will rock the bolt and fillet to cause the head to engage the other set of serrations. The loose mounting of the bolt 16 is important, since if the teeth on its head should engage upon the top of the teeth of one set of serrations the bolt will rock or swing so that the serrations on the head of the bolt may enter the bottom of the teeth on the other set of serrations, a result not possible if the bolt was not loosely mounted to rock or swing transversely, as set forth.

The rotary carrier 12 is provided eccentrically on its upper face with the carrier-lug 11, having the longitudinal perforation 13 receiving the carrier-bar 23, which is secured in place by the set-screw 11^a. One end of the carrier-bar 23 is threaded and carries the nut 25 and the loosely-fitting sleeve or collar 24, provided with the outwardly-extending arms 24^a, making an acute angle with the inner portion of the bar 23. The other end of the bar 23 loosely receives the sleeve or collar 26, which is secured in place by the set-screw 28. The outer end of the sleeve 26 is provided with the diverging arms 27, each having its outer end turned upwardly and backwardly to form the hooks 27^a.

The lantern is placed upon the bar 23 and arms 27 between the hooks 27^a and one arm 24^a of the sleeve 24. By loosening the nut 25 the sleeve 24 may be moved outwardly and the lantern released. The sleeve 26 is ordinarily moved only to adjust the clamping-arms to lanterns of different sizes.

It will be seen that by simply loosening the

nut 22 the lantern can be turned in a horizontal plane by turning the plate or carrier 12 or in a vertical plane by turning the angle-plate about the lug 9. Whether the jaws clamp a horizontal, vertical, or oblique support the lantern can by means of the plates 7 and 12 and the bar 23 be moved, so as to direct the light to any desired point after loosening the nut 22 and set-screw 11^a.

It will also be observed that the flange on the head 17^d serves when the jaws 17 and 18 are firmly clamped to bind against the arm 7 of the angle-plate.

The upper jaw 17 can oscillate on the extension or neck 17^c, so that the jaws may fit a tapering or uneven support.

In use the jaws 17 and 18 are opened by turning the screw 30^a and placed on either side of a suitable support, such as the horizontal portion of the front bow of a carriage-top, and the screw 30^a is turned by means of the wings 30^b until the jaws firmly grip the bow, the vertical leather strips on the bow entering the grooves 17^b and 18^b. To turn the light to the right or left, the bolt 16 is loosened and the rotary carrier 12 is turned as desired and the nut 22 tightened. To raise or lower the light, the set-screw 11^a is loosened and bar 23 turned as desired and set-screw 11^a again turned tight against the bar 23.

If the holder is to be clamped to the top of the dashboard of a carriage, the grooves 17^a and 18^a receive the leather-covered horizontal rib of the same, the rotary carrier being adjusted at a right angle to the position shown in Figs. 1 and 11, the bar 23 being adjusted to direct the light in the desired vertical plane. In this case if the bar 23 is used it will be necessary to have the carrier-lug 11 seated eccentrically on the rotary carrier with that edge of the lug upward which is nearest the edge of the rotary carrier 12, so that the bottom of the lantern may clear the carrier 12, as otherwise the edge of the carrier 12 will project too high and interfere with the seating of the lantern.

If the holder is to be clamped to the side of the dashboard, plate 7 is turned on the extension 6, so that the angle-plate stands at a right angle to the position shown in Figs. 1 and 11, the bar 23 being adjusted as required.

In lieu of the carrier-bar 23 and its attachments the bracket-support 29 may be used. This support is a plate designed to be made fast to a lamp or lantern and has the arm 29^a, having at a right angle thereto the arm 29^b, which is placed in the opening 13 in the lug 11 and secured therein in the same manner as the bar 23.

It will be observed that plate 7 serves to keep jaw 17 from rising in the slot 5.

Having fully described my invention, what I claim is—

1. In a clamp, a main frame having upper and lower longitudinal slots, the lower slot being closed by a connecting-plate having a slot registering with the lower slot, a jaw slid-

ing on said frame and provided with a screw-threaded apertured lug sliding in such lower slot, an adjusting-screw swiveled in the slot in the connecting-plate and passing through the threaded opening in the lug, a second jaw seated in the other slot in the main frame, and means for holding the last-named jaw in place.

2. In a clamp, a main frame having upper and lower longitudinal slots, the lower slot being closed by a connecting-plate having a slot registering with the lower slot, a jaw sliding on the said frame and provided with a screw-threaded apertured lug sliding in such lower slot, an adjusting-screw swiveled in the slot in the connecting-plate and passing through the threaded aperture in the lug, a second jaw seated in the other slot in the main frame, and means for holding the last-named jaw in place, said means consisting of a plate having a lug in the upper end of the said upper slot and engaging the upper jaw to hold it from rising.

3. In a clamp, a main frame having upper and lower longitudinal slots, the lower slot being closed by a connecting-plate having a slot registering with the lower slot, a jaw sliding on the said frame and provided with a screw-threaded apertured lug sliding in such lower slot, an adjusting-screw swiveled in the slot in the connecting-plate and passing through the threaded aperture in the lug, a second jaw journaled in the other slot in the main frame, and means for holding the last-named jaw in place.

4. In a clamp, a main frame having upper and lower longitudinal slots, the lower slot being closed by a connecting-plate having a slot registering with the lower slot, a jaw sliding on said frame and provided with a screw-threaded apertured lug sliding in such lower slot, an adjusting-screw swiveled in the slot in the connecting-plate and passing through the threaded aperture in the lug, a second jaw journaled in the other slot in the main frame, and a plate having a lug in the upper end of the said upper slot and engaging the upper jaw to hold it in place.

5. In a clamp, a main frame having upper and lower longitudinal slots, the lower slot being closed by a connecting-plate having a slot registering with the lower slot, a jaw sliding on said frame and provided with a screw-threaded apertured lug sliding in such lower slot, an adjusting-screw swiveled in the slot in the connecting-plate and passing through the threaded aperture in the lug, a second jaw journaled in the other slot in the main frame, and a plate having a lug in the upper end of the said upper slot and engaging the upper jaw to hold it in place and provided with means to support an object.

6. In a clamp, a main frame carrying two relatively-adjustable jaws, one of them having arms sliding on the frame and passing behind and engaging shoulders on the other jaw.

7. In a clamp, a main frame carrying two

relatively-adjustable jaws, one of them having longitudinally-grooved arms guided on the edges of the frame and held in place by the other jaw.

8. In a clamp, a main frame carrying two relatively-adjustable jaws, an angle-plate carried on said frame, the free end of the plate carrying a rotary carrier, and means including a loosely-mounted bolt for holding the carrier on the angle-plate.

9. In a clamp, a main frame carrying two relatively-adjustable jaws, one of the jaws being mounted for oscillation, an angle-plate carried on said frame, means mounted on said oscillating jaw to engage and hold such angle-plate, the free end of the angle-plate carrying a rotary carrier, and means for holding the carrier on the angle-plate.

10. In a clamp, a main frame carrying two relatively-adjustable jaws, one of the jaws being mounted for oscillation, an angle-plate carried on said frame, means mounted on said oscillating jaw to engage and hold such angle-plate, the free end of the angle-plate carrying a rotary carrier, and means for holding the carrier on the angle-plate, the other jaw being provided with means whereby the angle-plate is more securely held in place as the jaws engage their support with greater force.

11. In a clamp, a main frame carrying two relatively-adjustable jaws, an angle-plate journaled on said frame, the free end of the angle-plate carrying a rotary carrier, and means including a loosely-mounted bolt for holding the carrier on the angle-plate.

12. In a clamp, a main frame carrying two relatively-adjustable jaws, an angle-plate oscillatorily carried on said frame, the free end of the angle-plate carrying a movable carrier, and a simple means for adjustably securing the movable carrier on the angle-plate and the latter on the frame.

13. In a clamp, a frame carrying jaws and an oscillatory carrier having an arm carrying a pivoted carrier, and a single securing device to hold the two carriers in their adjusted positions.

14. In a clamp, a frame carrying jaws and an oscillatory carrier having an arm carrying a pivoted carrier, a bolt passing through the first-named carrier and simultaneously having its head engaging the frame and the pivoted carrier, and means for securing the bolt.

15. In a clamp, a frame carrying jaws and an oscillatory carrier having an arm carrying a pivoted carrier, a bolt pivotally mounted in the first-named carrier and simultaneously engaging the frame and the pivoted carrier, and means for securing the bolt.

16. In a clamp, a main frame, an angle-plate journaled on the frame, a carrier journaled on the angle-plate, a fillet or washer seated in the angle of the angle-plate but not entirely filling the said angle, a bolt passing through the angle-plate and fillet and having a head to engage both the frame and the car-

rier on the angle-plate, and means for holding the bolt in place.

17. In a clamp, a main frame, a pivoted carrier adjustably carrying a rod provided with means for supporting and securing a lantern, such means including a collar provided with a plurality of arms.

18. In a clamp, a main frame, a pivoted carrier adjustably carrying a rod provided with means for supporting and securing a lantern, such means including an adjustable collar provided with a plurality of arms.

19. In a clamp, a main frame, a pivoted carrier adjustably carrying a rod provided with means for supporting and securing a lantern, such means comprising two collars, each having a plurality of arms.

20. In a clamp, a main frame carrying two relatively-adjustable jaws, an angle-plate

carried on said frame, the free end of the angle-plate carrying a pivoted carrier, a single means for holding the carrier on the angle-plate and the angle-plate on the main frame, and means pivotally supported on the pivoted carrier and adapted to bear a lantern.

21. In a clamp, an angle-plate, a washer oscillatorily seated in the angle of the angle-plate, a bolt passed through the angle-plate and washer, the head of the bolt securing the angle-plate to its support and a pivoted carrier to itself, and a clamping device for the bolt.

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

JAMES A. MILLER.

Witnesses:

CALVIN T. NORTHROP,
JENNIE B. STEVENS.