May 22, 1956 B. L. AUSMUS 2,746,064

FIRE HOSE HOLDER AND CLAMP

Filed Sept. 8, 1952 2 Sheets-Sheet 1

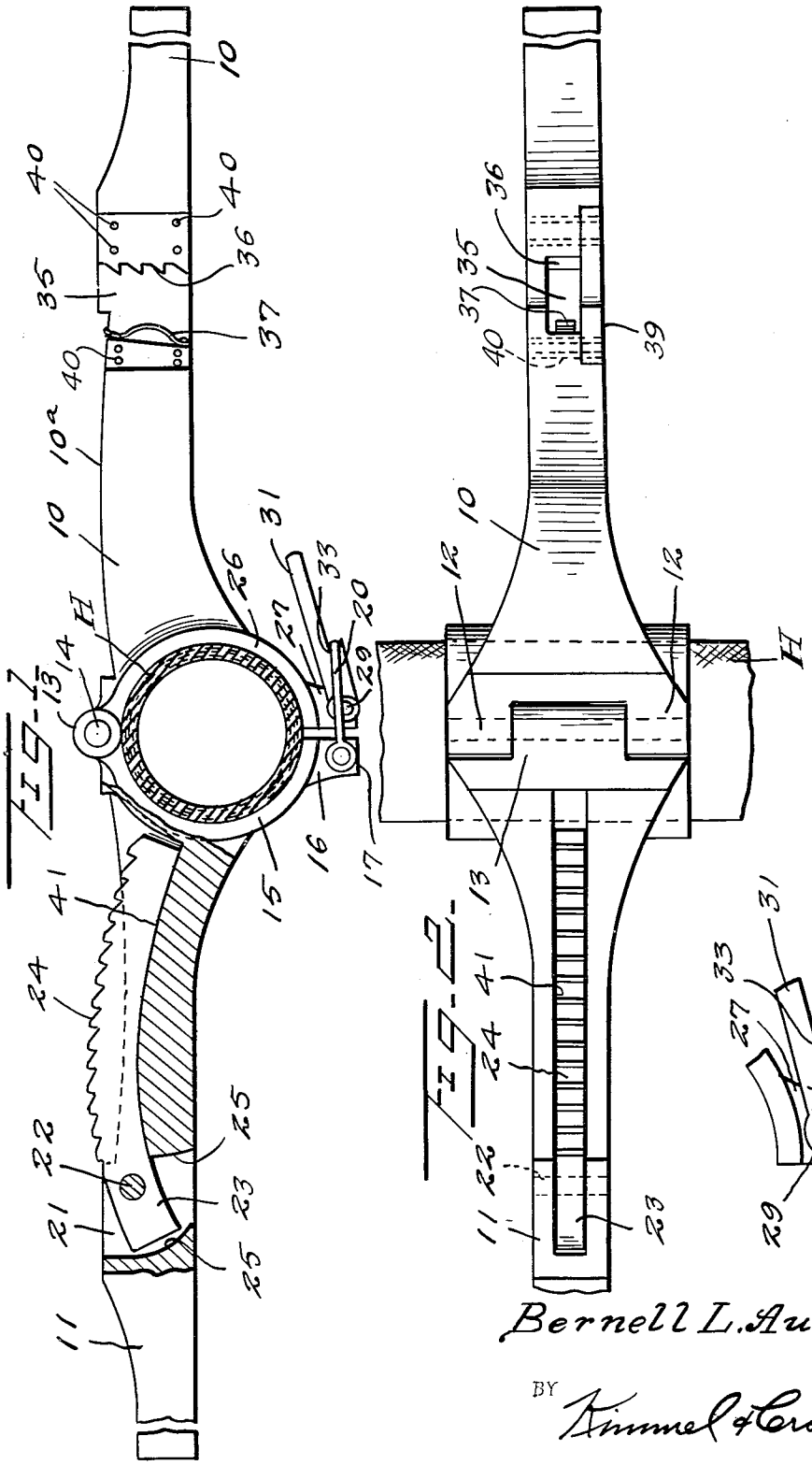


FIG. 1

FIG. 2

FIG. 3

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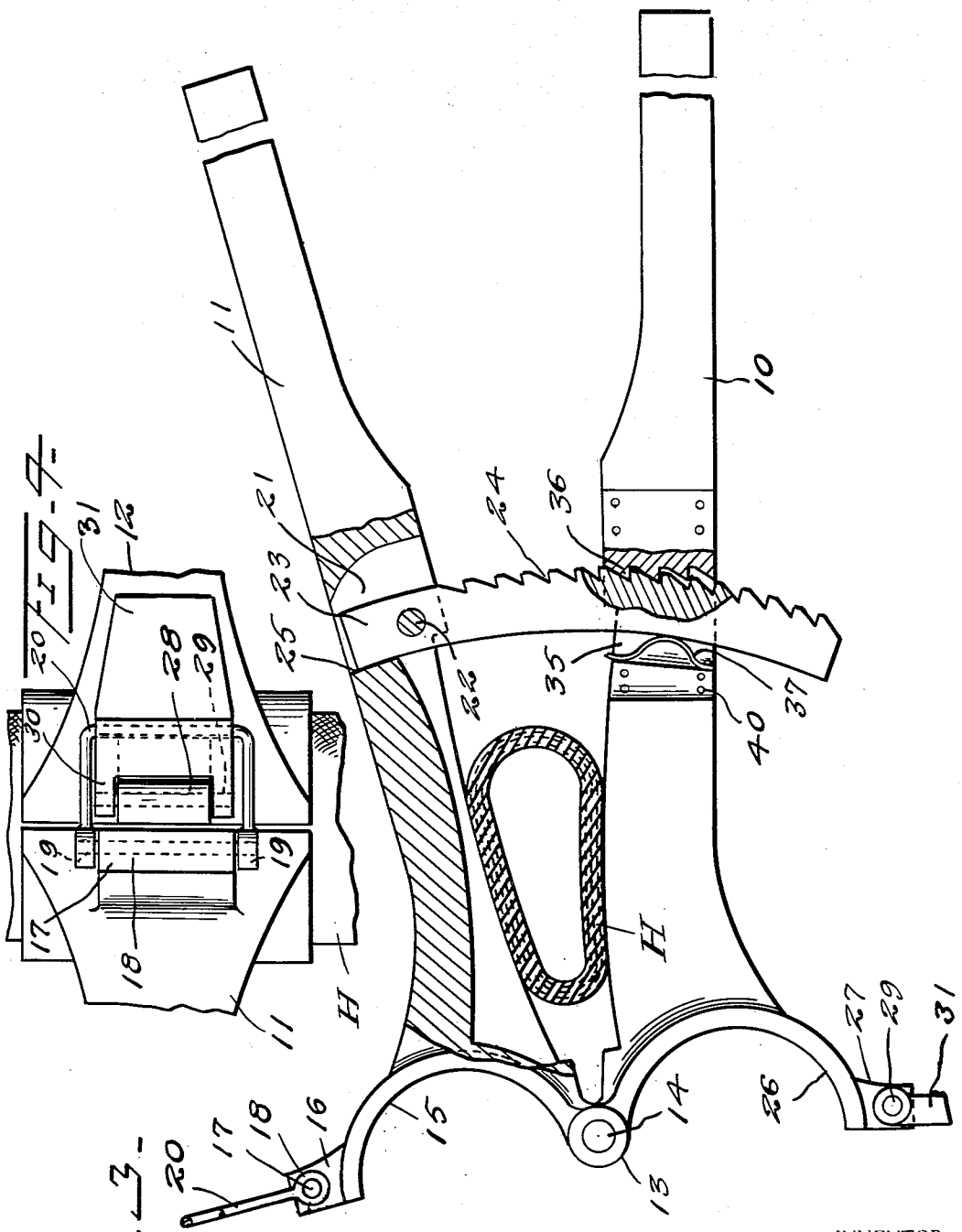


FIG. 3.

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FIRE HOSE HOLDER AND CLAMP

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1 Claim. (Cl. 7—4)

This invention relates to a fire hose holder and clamp, and has for its primary object the provision of an improved device for providing an auxiliary hand hold for a hose combined with a clamp for pinching off a hose.

A further object of the invention is the provision of a device adapted to be positioned on a charged fire hose near the nozzle to provide supplemental handles for securely holding the hose.

A further important object of the invention is the provision of such a device which may be utilized to pinch off a dry or charged line so that additional hose line may be added or the nozzle may be changed while the hose is charged.

A further object of the invention is the provision of an adjustable clamping means whereby the volume of water flowing through the line may be regulated by effecting a pinching action on the line.

Still other objects reside in the combinations of elements, arrangement of parts, and features of construction, all of which will be described more fully hereinafter, and shown in the drawings wherein there is disclosed a preferred embodiment of this inventive concept.

In the drawings:

Figure 1 is a side view partially in elevation and partially in section, showing one form of hose holder and clamp applied to a fire hose in holding position,

Figure 2 is a top plan view of the construction shown in Figure 1,

Figure 3 is a side view partially in elevation and partially in section, showing the device of Figure 1 in hose clamping position,

Figure 4 is a fragmentary bottom plan view showing the device in locked hose holding position,

Figure 5 is a fragmentary sectional view showing a structural detail of the latching structure shown in Fig. 4.

Similar reference characters refer to similar parts throughout the several views of the drawings.

Referring now to the drawings in detail, and more particularly to Figure 1, the device is comprised of a pair of oppositely disposed handle portions **10** and **11** respectively. As best shown in Figure 2, handle **10** is provided adjacent one extremity with a pair of spaced aligned lugs **12**, between which fits a single lug **13** carried by a handle **11**. Lugs **12** and **13** are provided with aligned bores through which extends a pivot or hinge pin **14**, in order to provide for pivotal swinging movement of the handle members relative to each other.

Referring now to handle **11**, the same is provided with an arcuate half section **15**, at one end thereof, which terminates in a lug **16**, provided with a barrel **17** apertured to receive a hinge pin **18**, to the ends of which are secured lugs **19** positioned at the extremities of a U-shaped clamp or locking member **20**, the latter being freely swingable about the pivot **18**.

The elongated handle portion **11** is provided with a recess **21** extending therethrough, within which is pivoted, as by a pivot **22**, one end of a clamp or locking member **23**. The member **23** is arcuate in configuration and is provided along its convex edge with a plurality of serrations or teeth **24**. The outer end of recess **21** is arcuate, as indicated at **25**, to permit free swinging of the end of member **23** while the inner end of recess **21** is provided with a shoulder or stop **25** which serves to hold member **23** in substantially vertical position relative to the recess, when the parts are in the position shown in Figure 3 for example.

Referring now to the opposite handle member **10**, there is provided at one extremity an arcuate or semi-circular member **26** which terminates in a lug **27** provided with a barrel **28** containing a pivot or hinge pin **29**, the ends of which extend outwardly and engage in the end portions **30** of an elongated handle member **31**, the handle member **31** being provided with a projection **32** on the lower side thereof to form a recess **33** for the accommodation of the bale of member **20** when the parts are in locked or latched relation.

In the elongated handle portion **10** there is provided a groove or recess **35** extending vertically through the handle and having along one edge thereof a plurality of serrations or teeth **36** oppositely disposed relative to the projections **24** for coaction therewith, in a manner to be described more fully hereinafter. The opposite face of recess **35** is provided with a relatively thin leaf spring **37** and the entire recess may be closed by a cover plate **39**, secured as by means of screws or the like in apertures **40** in the side wall of handle **10** (see Fig. 2). Figures 1 and 3 show the device with the cover plate removed.

In the use and operation of the device, when it is desired to utilize the construction as a hose holder, the parts are arranged in the position shown in Figure 1, about a hose H, with lugs **16** and **27** in aligned relation, and with the bale **20** engaged in recess **33**. Upward movement of the handle **31** will serve to effect a locking or clamping action to securely hold the handle and hose in related assembly, while the pressure within hose H will serve to bias arcuate members **15** and **26** outwardly a sufficient degree to retain the engagement of bale **20** in recess **33**.

Obviously, downward pressure of handle **31** will release the bale **20** from its associated recess **33** to permit disengagement of the handle from the hose.

When it is desired to clamp a hose H, the parts are moved to the position shown in Figure 3, with the handle **10** on one side of the hose and the handle **11** on the other side. At this point member **23** is swung out of its recess **41** in handle member **11** to vertical position, the shoulder **25** serving as a stop to retain the same in alignment and is guided by the arcuate upper surface **10***a* of handle **10**, into recess **35**. The surface **10***a* provides a convex clamping surface which cooperates with a concave clamping surface formed on handle **11** for clamping engagement with the hose H. Spring **37** biases teeth **24** toward and into engagement with teeth **36**, and the inter-engagement of the teeth serves securely to clamp the handle members together about the hose H in such manner as to securely clamp the hose to either restrict or entirely cut off the flow of water therethrough.

When it is desired to release the clamping action of the hose it will be readily apparent that inward pressure of member **23** against spring **39** will effect disengagement of the interlocked teeth and permit the ready disengagement of handles **10** and **11** to unclamp the hose.

From the foregoing it will now be seen that there is herein provided an improved hose clamp and handle which accomplishes all of the objects of this invention and others, including many advantages of great practical utility and commercial importance.

As many embodiments may be made of this inventive

concept, and as many modifications may be made of the embodiment hereinbefore shown and described, it is to be understood that all matter herein is to be interpreted merely as illustrative and not in a limiting sense.

What I claim is:

A fire hose clamp comprising a semi-cylindrical section having a concave inner surface and a convex outer surface, an elongated member integrally joined to the central portion of the convex outer surface of said section, a lug integrally secured to and extending beyond one edge of said section with the axis of said lug parallel to the axis of said semi-cylindrical section, said elongated member having a recess extending therethrough with the axis of said recess extending right angularly to the axis of said section, said recess being spaced from the opposite ends of said member, said member having a recess formed in one side face thereof extending from the convex surface of said section to said first named recess, an arcuate arm pivotally secured at one end in said first recess and adapted to pivot from a position perpendicular to said member to a position generally parallel to said member and within said second recess, ratchet teeth formed on the convex side of said arm, a concave clamping surface formed on said elongated member adjacent said second recess, a second semi-cylindrical section having a concave inner surface and a convex outer surface, an elongated member integrally joined to the central portion of the convex outer surface of said second section, a convex clamping surface formed on said second elongated member, a pair of spaced-apart aligned lugs integrally secured to and extending beyond one edge of said second section with the axis of said lugs parallel to the axis of said second section, a hinge pin

pivotally securing said first lug between said pair of lugs, said elongated member having a groove extending therethrough with the axis of said groove generally perpendicular to the axis of said section, a cover for said groove closing the side face thereof, a flat spring secured to the inner wall of said groove, rack teeth formed in the outer wall of said groove, said groove being adapted to receive said arm with said ratchet teeth held in engagement with said rack teeth by said spring for locking said clamping surfaces closed in clamping relation with a fire hose, and a separable fastener secured to the side edges of said sections opposite said lugs with said separable fastener being adapted to lock said clamping surfaces completely open, said sections being adapted to be engaged about a hose and held thereon by said separable fastener so that said elongated members may then serve as hose manipulating members.

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