

No. 659,686.

Patented Oct. 16, 1900.

J. F. MITCHELL.

SNAP HOOK.

(Application filed Mar. 10, 1900.)

(No Model.)

Fig. 1.

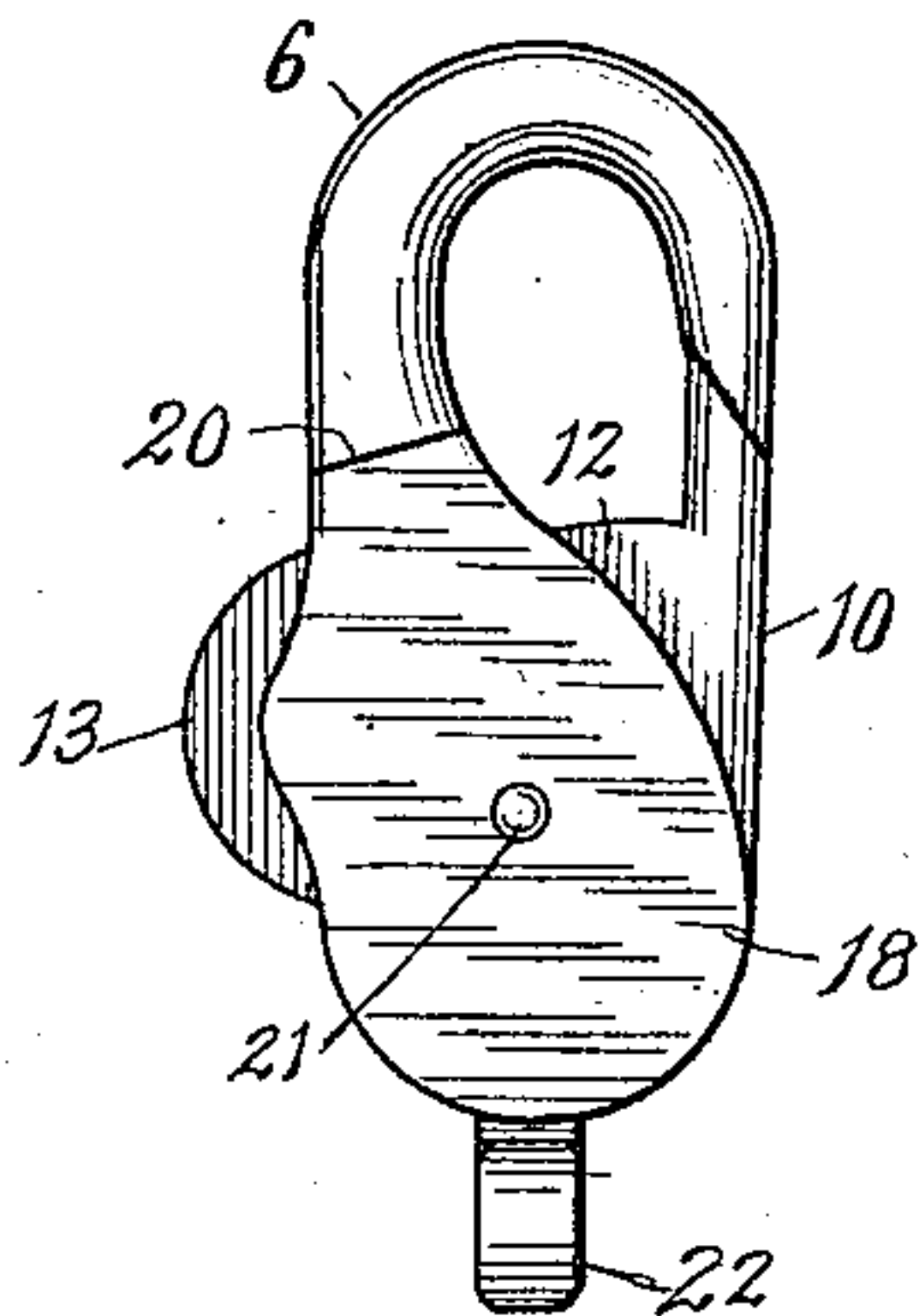


Fig. 2.

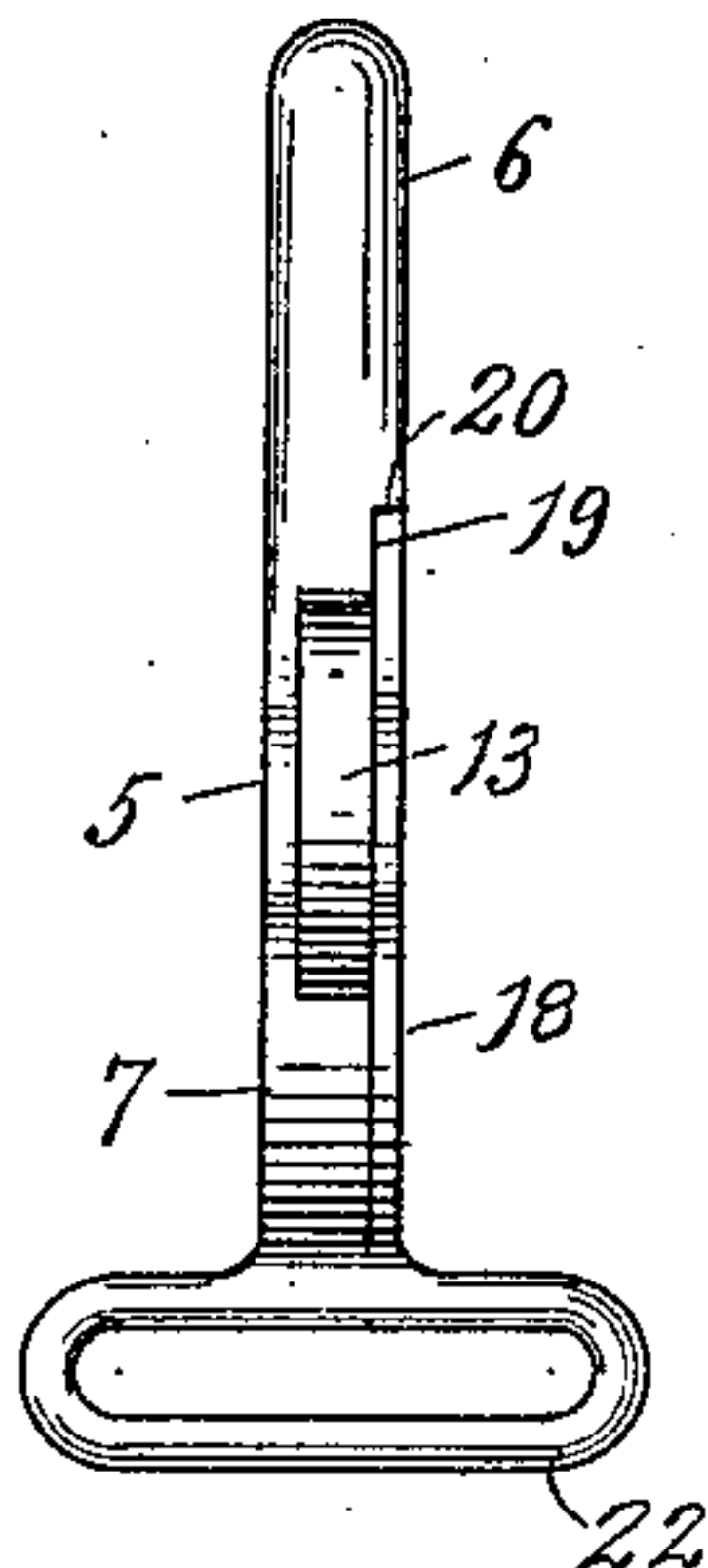


Fig. 3.

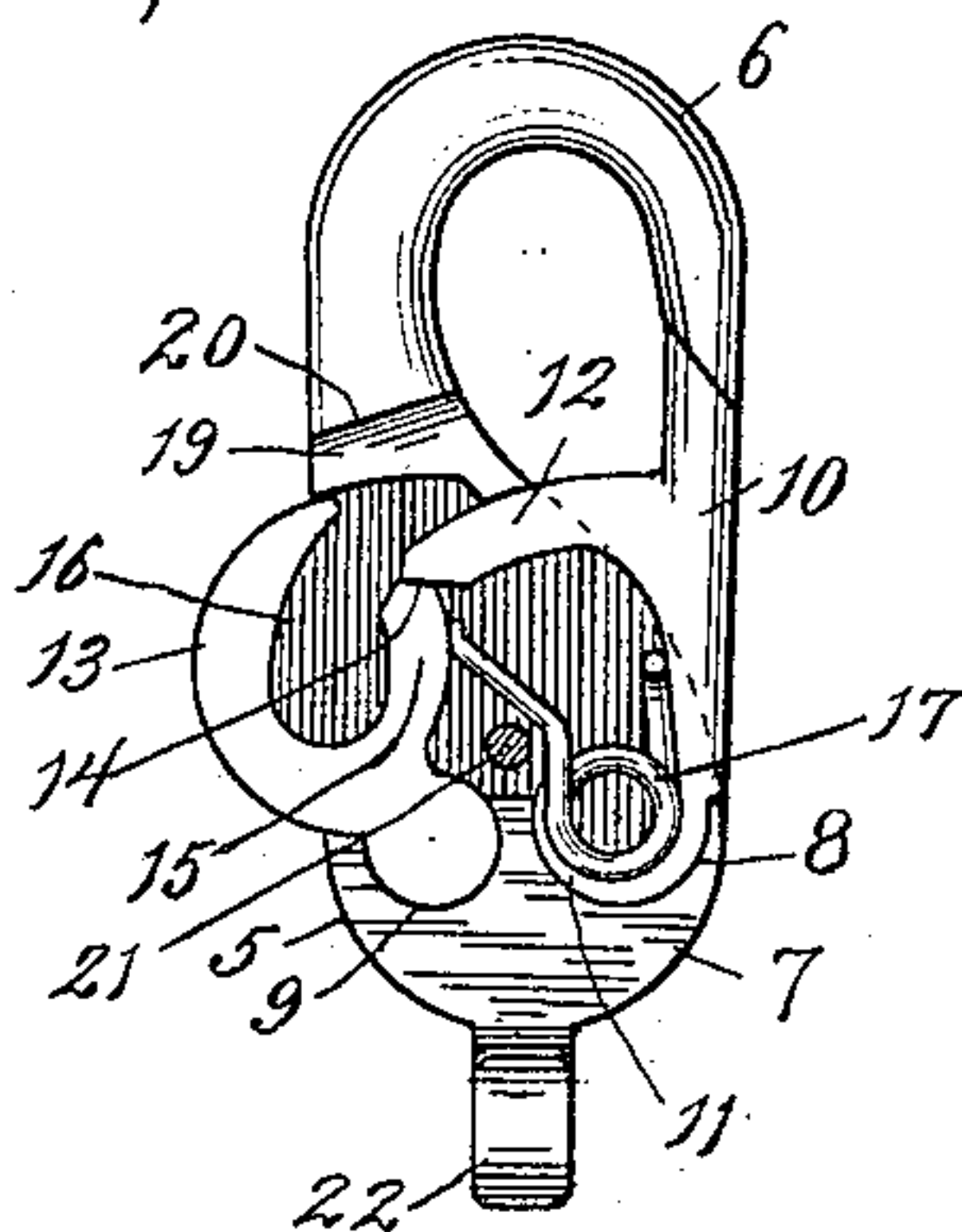
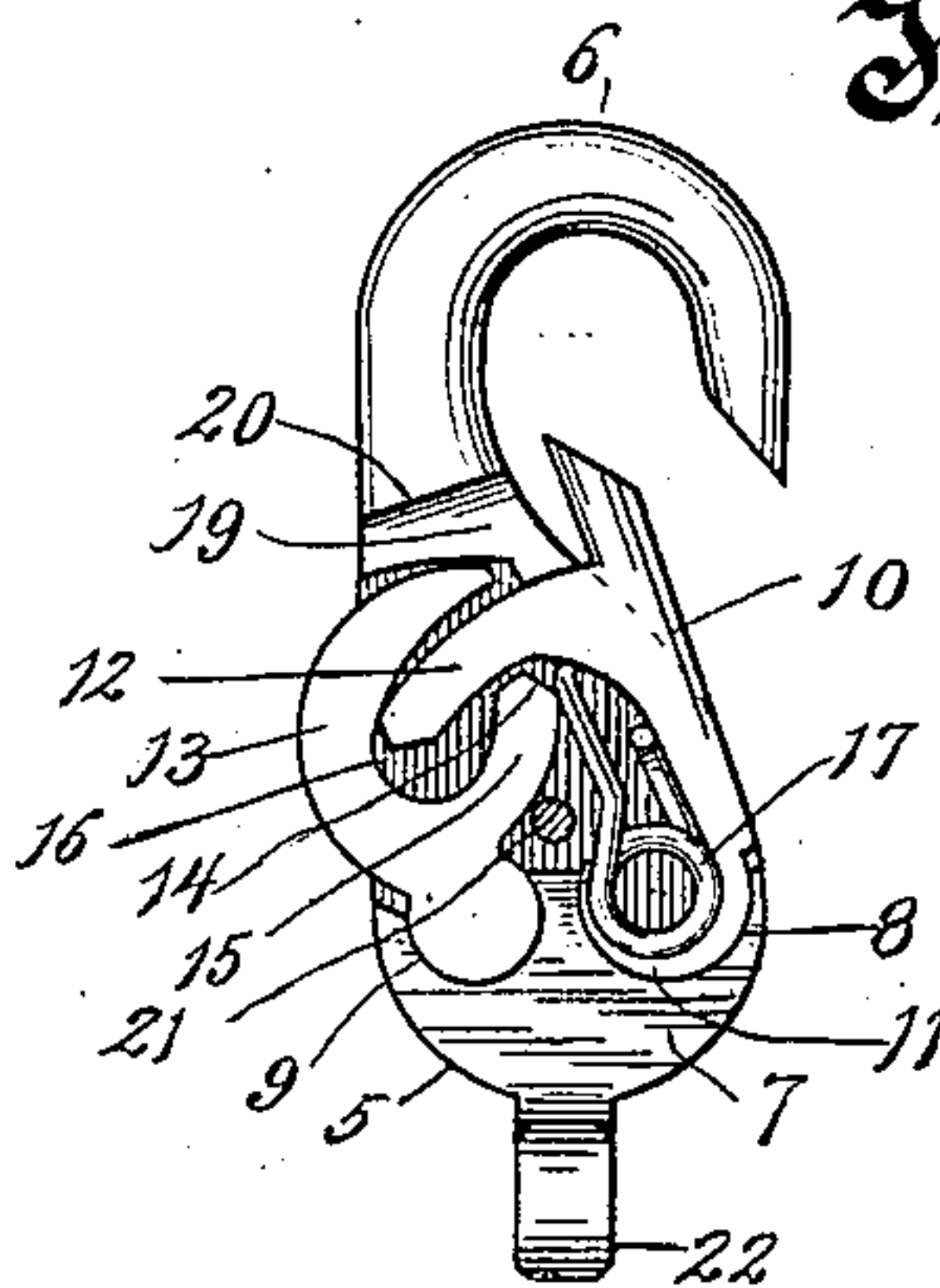


Fig. 4.



Witnesses.

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UNITED STATES PATENT OFFICE.

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SNAP-HOOK.

SPECIFICATION forming part of Letters Patent No. 659,686, dated October 16, 1900.

Application filed March 10, 1900. Serial No. 8,170. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. MITCHELL, of Kneeland, in the county of Racine and State of Wisconsin, have invented a new and useful Improvement in Snap-Hooks, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention has relation to improvements in snap-hooks.

The primary object had in view is to provide a snap-hook which is simple in construction and operation and inexpensive of production.

A further object contemplated is to provide a construction wherein the necessity for using rivets to form the pivots for the turning or swinging parts is entirely obviated.

A still further object is to provide a construction of such character that it will be proof against dirt or other foreign matter entering the interior of the hook, and thereby clogging and preventing the successful operation of the working parts.

With the above objects in view the invention consists of the devices and parts or their equivalents, as hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a side elevation of the complete hook. Fig. 2 is an edge view. Fig. 3 is a side elevation with the side plate removed and showing the parts in locked position; and Fig. 4 is a similar view to Fig. 3, but showing the parts unlocked, so as to admit of the insertion of a ring or bail into the hook.

Referring to the drawings, the numeral 5 indicates the main or body portion of the hook, from the end of which projects a curved arm or hook member 6. The metal at the lower end of this main or base portion is thickened, as indicated by the numeral 7, and the upper edge of this thickened portion is provided with two circular recesses 8 and 9, respectively.

The numeral 10 indicates a mousing or keeper the lower end of which is curved inwardly, as indicated by the numeral 11, and this inwardly-curved end fits and turns in the recess 8. The upper end of the mousing, as is usual in this class of devices, coöperates or contacts with the free end of the hook member 6 when the snap is in its normally-locked position. The mousing is also provided at

a medial point of its inner edge with an inwardly - extending, preferably upwardly-curved, finger 12.

The lower rounded extremity of a locking device 13 fits and turns in the recess 9, and the outer edge of this locking device is outwardly-curved, as clearly shown, and occupies the space between the inner end of the hook member 6 and the inner edge of the thickened portion 7. The end of the inwardly-extending finger 12 is adapted to normally rest against a shoulder 14, formed on the locking device, and this shoulder is advisably formed by the end of a projection 15 from the lower portion of the inner edge of said locking device, the space between the projection 15 and the curved portion of the locking device forming a recess 16, which receives the finger 12 of the mousing when said mousing is forced inwardly.

The numeral 17 indicates a spring. The coil of this spring fits in the inwardly-curved lower end 11 of the mousing. One end of this spring bears against the mousing and the opposite end thereof against the locking device.

The numeral 18 indicates a side plate which is fitted over the mousing and the locking device and conforms to the general shape of the main portion 5 of the snap. Its lower end fits against the lower thickened portion 7, and its upper end fits against an upper thickened portion 19 of the body of the snap and against a shoulder 20, formed near the inner end of the hook member 6. The plate is secured by means of a rivet 21. At the lower end of the main part 6 of the hook is arranged the usual transverse loop 22 for the passage of a harness-strap or other device therethrough.

If the parts are in the position shown in Figs. 1, 2, and 3 and it is desired to insert a link or bail into the hook behind the mousing or keeper, pressure is exerted on the locking device 13 in a direction to force said device inwardly against the action of the spring 17. This will throw the shoulder 14 out of engagement with the end of the finger 12, and hence no obstruction will be offered to the forcing inwardly also of the mousing against the action of the spring 17, the finger 12 passing into the recess 16 and the parts assuming the positions shown in Fig. 4. It will be evident that a ring or bail can now be readily in-

serted back of the mousing. Pressure on the locking device and mousing being removed, the parts will return to their normal locking position, (shown in Figs. 1, 2, and 3,) and of course the ring or bail is thereby held in locked engagement with the hook.

From the construction adopted by me it will be seen that the necessity for providing rivets is entirely obviated, as the locking device and the mousing are adapted to turn freely in the recesses 8 and 9. A disadvantage inherent in other forms of snap-hooks—*i. e.*, the possibility of dirt and other foreign matter getting into the hook, and thereby clogging the parts—is also avoided. It will be evident that inasmuch as the side plate 18 fits against the enlarged or thickened portions 7 and 19 of the main part 5 the edges which would otherwise be exposed are covered. The slot in one side edge is also effectually covered by the curved formation of the locking device 13, while the mousing covers the slot in the opposite side edge.

What I claim as my invention is—

1. In a snap-hook, the combination of a main part having a depressed portion, and said main portion also provided with slots in opposite edges thereof, and with a hook projecting from one end thereof, a pivoted locking device arranged in the depressed portion of the main part and having an outwardly-curved edge fitting in the slot of one of the side edges and covering said slot, a pivoted mousing or keeper also arranged in the depressed portion of the main part and filling the slot in the opposite side edge, said mousing provided with a projecting finger adapted normally to engage a shoulder of the locking device, and a spring acting against the locking device and against the mousing, and adapted to hold said parts in their normal outwardly-swung positions, with the finger of the mousing resting against the shoulder of the locking device, but permitting said parts to be pushed inwardly, so as to admit of the insertion of a ring or bail.

2. In a snap-hook, the combination of a main part having a depressed portion, and also having slots in opposite side edges, and further provided at one end with a projecting hook member, a pivoted locking device arranged in the depressed portion of the main part and having a lower rounded end fitting in a rounded recess in the main part and adapted to turn therein, said locking device also having an outwardly-curved edge fitting in the slot of one of the side edges and covering said slot, a mousing or keeper arranged in the depressed portion of the main part, and provided with a lower rounded end fitting a rounded recess in said main part, said mousing also fitting the opposite side slot, and provided with an inwardly-projecting finger adapted normally to engage a shoulder of the locking device, and a spring acting against the locking device and against the mousing and adapted to hold said parts in

their normal outwardly-swung positions, with the finger of the mousing resting against the shoulder of the locking device, but permitting said parts to be pushed inwardly so as to admit of the insertion of a ring or bail.

3. In a snap-hook, the combination of a main part having a depressed portion, and also provided in opposite side edges with slots, and at one end with a projecting hook member, a pivoted locking device arranged in the depressed portion of the main part, and having an outwardly-curved edge fitting in the slot of one of the side edges and covering said slot, and also having an inward extension, the end thereof forming a shoulder, and the space between said inward extension and the main part of the locking device forming a recess (16,) a pivoted mousing or keeper also arranged in the depressed portion of the main part and filling the slot in the opposite side edge, said mousing provided with a projecting finger adapted to normally engage the shoulder at the end of the extension from the locking device, and a spring acting against the locking device and against the mousing and adapted to hold said parts in their normal outwardly-swung positions, with the finger of the mousing resting against the shoulder of the locking device, but permitting said parts to be pushed inwardly so as to admit of the insertion of a ring or bail, the finger of the mousing, when the parts are pushed inwardly, passing into the recess 16.

4. In a snap-hook, the combination, of a main part having a depressed portion, and thickened portions at its upper and lower ends, and also provided in its side edges with slots, a hook member projecting from one end of the main part, a pivoted locking device arranged in the depressed portion of the main part, and having an outwardly-curved edge fitting in the slot of one of the side edges and covering said slot, a pivoted mousing or keeper also arranged in the depressed portion of the main part and filling the slot in the opposite side edge, said mousing provided with a projecting finger adapted normally to engage a shoulder of the locking device, a spring acting against the locking device and against the mousing and adapted to hold said parts in their normal outwardly-swung positions, with the finger of the mousing resting against the shoulder of the locking device, but permitting said parts to be pushed inwardly so as to admit of the insertion of a ring or bail, and a plate fitted to one side of the main part and conforming to the shape thereof, and adapted to cover the interior parts, and to fit against the enlarged or thickened opposite ends of the snap-hook.

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

JOHN F. MITCHELL.

Witnesses:

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