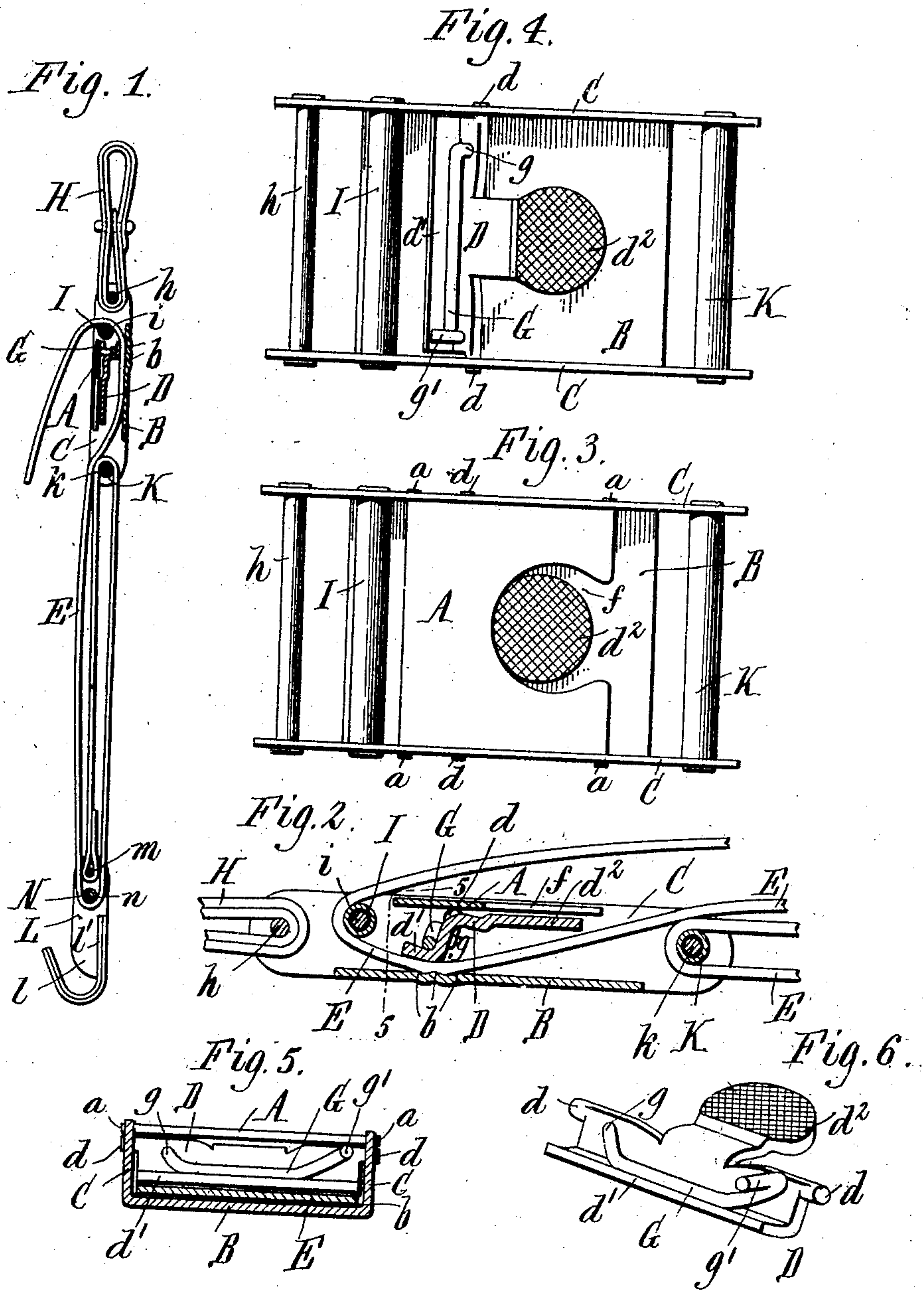


No. 840,063.

PATENTED JAN. 1, 1907.

M. E. HUTCHISON.
BUCKLE.

APPLICATION FILED AUG. 12, 1905.



Witnesses:

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UNITED STATES PATENT OFFICE.

MONTROSE E. HUTCHISON, OF KLAMATH FALLS, OREGON, ASSIGNOR OF
ONE-HALF TO JOSEPH G. PIERCE, OF KLAMATH FALLS, OREGON.

BUCKLE.

No. 840,063.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed August 12, 1905. Serial No. 273,956.

To all whom it may concern:

Be it known that I, MONTROSE E. HUTCHISON, a citizen of the United States, residing at Klamath Falls, in the county of Klamath and State of Oregon, have invented a new and useful Improvement in Buckles, of which the following is a specification.

This invention relates to that class of buckles which hold the strap by pinching the same between the buckle-frame and a movable cam or clamping-lever which is so constructed that it is tightened by the strain on the strap and released by pulling upon the free end of the strap.

The objects of this invention are to produce a buckle of this kind which is simple and durable in construction and effective and convenient in operation.

In the accompanying drawings, Figure 1 is a sectional elevation of my improved buckle and the strap and hook connected therewith. Fig. 2 is a longitudinal section of my improved buckle on an enlarged scale. Fig. 3 is a top plan view of the buckle. Fig. 4 is a top plan of the buckle with the top plate of the frame removed. Fig. 5 is a cross-section in line 5 5, Fig. 2. Fig. 6 is a perspective view of the cam-lever.

Like letters of reference refer to like parts in the several figures.

The buckle-frame is a box-like structure comprising a front plate A, back plate B, and side pieces C. The latter are preferably formed integrally with the back plate B, and the front plate A may be provided at its sides with projecting studs *a*, which extend through openings in the side pieces and are headed for securing the parts together; but other means for connecting the parts may be employed.

The buckle-frame is provided between the plates with the clamping-lever D, which is pivoted to the buckle-frame by studs or journals *d* and which bears with its inner arm *d'* against the strap E and presses the latter against the back plate. The inner arm *d'* of the clamping-lever is provided with a curved or eccentric clamping cam or face so arranged with reference to the pivot-line of the lever that this clamping cam or face will press the strap against the back plate B of the frame and impinge the tighter the greater the strain on the strap, but will be swung

away from the back plate and release the strap when the latter is pulled by its free end in the opposite direction. The back plate B is preferably provided opposite the clamping-face of the cam-lever with one or more transverse ribs *b* for intensifying the pinching action. The clamping-face of the lever is smooth and does not cut or wear the strap, and the clamping ribs, projections, or corrugations on the buckle-frame give the necessary holding power without preventing the strap from freely sliding through the buckle when the clamping-lever is released.

The releasing-arm or thumb-piece *d²* of the clamping-lever D is arranged below the level of the front plate A, whereby it is protected against accidental displacement, and in order that the thumb-piece may be conveniently reached and manipulated the front plate is provided above the thumb-piece with a notch *f*, which exposes the latter.

The cam-lever is yieldingly pressed with its clamping-arm *d'* toward the back plate B by a spring of any suitable construction. This spring is preferably, as shown, a wire spring G, which is arranged transversely upon the clamping-arm *d'* of the lever and secured with one end *g* in the same and has its opposite free end *g'* doubled back and arranged to bear underneath the front plate A, so as to press the clamping-arm *d'* of the lever toward the back plate B. By pressing the releasing-arm *d²* of the lever toward the back plate the clamping-arm *d'* is swung away from the back plate against the pressure of the spring, and upon releasing the lever the spring returns the same to its former position. A spring of this construction is very durable and effective and can be produced at small cost.

The buckle-frame is provided at one end (that which is uppermost when the buckle is used in connection with a saddle) with a cross-pin *h* for attachment to the strap H or other fastening by which the buckle is connected with the saddle. The frame is further provided between this cross-pin and the front plate A with a cross-pin *i*, which is surrounded by a tubular roller I for guiding the free end of the strap E. The buckle-frame is provided at its opposite rear or lower end with a cross-pin *k*, surrounded by a tubular roller K for guiding the strap.

The attached end of the strap E is secured to a hook L, which is engaged with the cinch or girth loop or other attaching device and which is provided with a cross-pin *m*, to which the end of the strap is secured. The hook is provided with upturned side pieces or flanges *l* for receiving this cross-pin and has its bill preferably reinforced by a lining-piece *l'*. The hook is further provided with a cross-pin *n*, surrounded by a tubular roller N for guiding the strap. The latter extends from the attaching-pin *m* of the hook upwardly to the guide-roller K of the buckle, thence downwardly to the guide-roller N of the hook, thence upwardly to the buckle and beyond the guide-roller K between the clamping-lever D and the back plate, and finally around the guide-roller I of the buckle.

My improved buckle is very desirable for use in connection with a saddle cinch or girth, in which case the buckle is fastened to the latigo-ring of the saddle by the strap H or other means. After placing the saddle upon the horse and drawing the cinch or girth under the horse's belly the hook L is engaged in the cinch or girth ring and the cinch or girth is tightened by pulling upon the free end of the strap E. The cinch or girth may be tightened at any time without dismounting by simply reaching down and exerting a pull on the free end of the strap E, which is always in convenient reach of the rider.

While the buckle is especially desirable for use in connection with a cinch or saddle-girth, it may also be applied to other uses—for instance, in connection with hoisting-tackle or painters' scaffolds.

I claim as my invention—

1. A buckle comprising a frame having a back plate and a front plate, a clamping-lever arranged between said plates and having an

inner eccentric clamping-arm which extends forwardly from the pivot-line and presses the strap against the back plate, and an outer releasing-arm which extends rearwardly from the pivot-line and beyond the front plate, substantially as set forth.

2. A buckle comprising a frame having a back plate and a front plate, a clamping-lever arranged between said plates and having an inner clamping-arm which presses the strap against the back plate and an outer releasing-arm, an attaching device arranged at the front end of said frame, and a strap-guide arranged on said frame between said attaching device and said lever, substantially as set forth.

3. A buckle comprising a frame having a back plate, side pieces and a front plate, a clamping-lever arranged between said front and back plates, an attaching device arranged at the front end of said frame, a strap-guide arranged between said attaching device and said lever, and a strap-guide arranged at the rear end of said frame, substantially as set forth.

4. A buckle comprising a frame having a front plate and a rear plate, a clamping-lever pivoted between said plates and having its clamping-arm movable toward and from said back plate, and a transversely-arranged wire spring attached with one end to said lever and bearing with its opposite end against said front plate and operating to press the clamping-arm of said lever toward said back plate, substantially as set forth.

Witness my hand this 25th day of July, 1905.

MONTROSE E. HUTCHISON.

Witnesses:

ALLEN SLOAN,
L. B. YADEN.