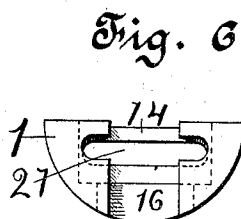
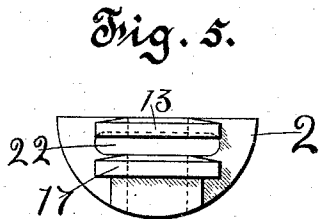
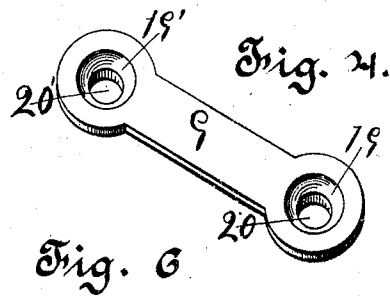
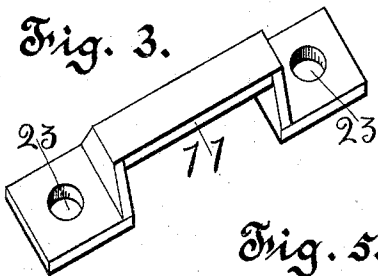
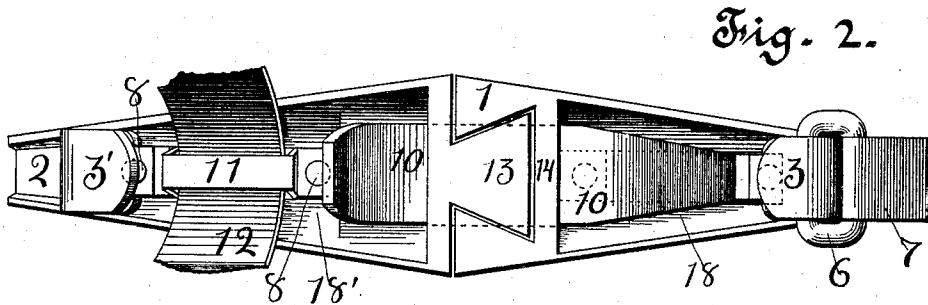
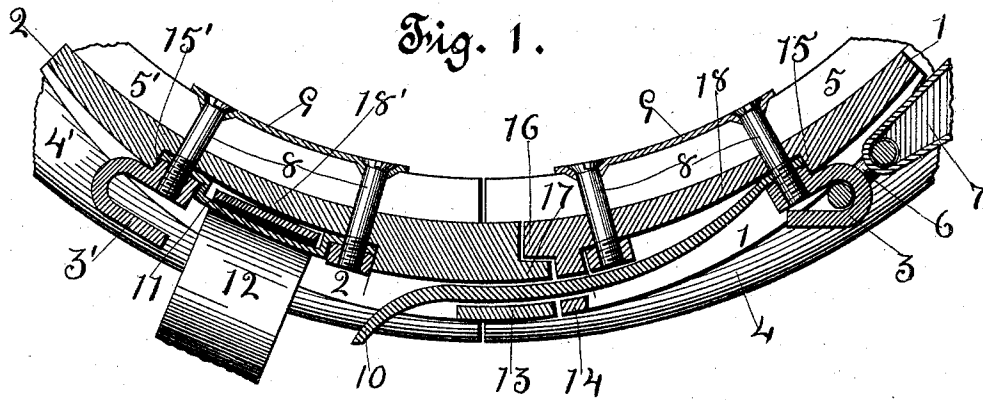


(No Model.)

J. C. WEINMAN.
COMBINED COLLAR AND HAME FASTENER.

No. 482,492.

Patented Sept. 13, 1892.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOSEPH C. WEINMAN, OF BLAIR, NEBRASKA.

COMBINED COLLAR AND HAME FASTENER.

SPECIFICATION forming part of Letters Patent No. 482,492, dated September 13, 1892.

Application filed May 2, 1892. Serial No. 431,550. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH C. WEINMAN, a citizen of the United States, residing at Blair, in the county of Washington and State of Nebraska, have invented a new and useful Combined Collar and Hame Fastener, of which the following is a specification.

My invention relates to improvements in fasteners to separably hold together the lower end or throat of horse-collars and hames; and the objects of my invention are, first, in a collar-fastener to so dispose of the martingale-strap that it will not be in the way in buckling and unbuckling the hame-strap; second, to provide a light combined collar and hame fastener with a separable joint of ample strength, and thus dispense with the use of the hame-strap; third, to provide a contrivance that is easily changed, so as to be used as a collar-fastener or a combined hame and collar fastener, and, fourth, to make a more firm and rigid attachment of the fastener to the halves of the collar than has been heretofore used. I attain the objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a vertical longitudinal section through the center of the fastener coupled together and a portion of the lower ends of the halves of the collar to which it is attached, 4 and 4' being the lower ends of the belly of the collar, which comes in contact with the shoulders of the animal. Fig. 2 is a view of the lower face of the two principal parts of the fastener 1 and 2 coupled together. Fig. 3 is a perspective view of the martingale loop or retainer 11 detached from the part 2. Fig. 4 is a perspective view of the double countersunk washer 9 detached from the fastener and collar. Fig. 5 is a view of the joint end of part 2, and Fig. 6 is a view of the joint end of part 1.

Similar numerals refer to similar parts throughout the several views.

The fastener consisting of two principal parts 1 and 2, curved longitudinally to fit the lower ends of collar and having their upper surfaces round to fit in the groove between the belly and the rim, are each attached to opposite halves of the collar at the throat or

lower end by two screw-bolts 8, passed through the thin portion of the collar 5 and 5', the heads of which are seated in the double washer 9, having the apertures 20 and 20', with the pressed countersinks 19 and 19', adapted to receive the heads of the screw-bolts 88'. This double washer is made from a single piece of plate metal cut in the form shown in Fig. 4, each end being a disk and connected by a narrower integral central portion, the countersinks being formed by bending or pressing the metal. This double washer 9 is drawn against the inner surface of the collar when the screw-bolts are turned home in the nuts on their opposite ends, bearing against the lower face of the parts 1 and 2. By the use of this double washer a larger portion of the thin part of the collar 5 and 5' is grasped to support and retain the fastener, preventing either single bolt from being torn out of the collar.

The separable coupling or joint connecting the parts 1 and 2 consists of a simple loose-fitting dovetail, which slides together perpendicularly by bringing the underlapping dovetail extension 13 and 17 of part 2 directly beneath, then sliding it upward into the corresponding recess in part 1 to the position shown in Fig. 1. To stop the dovetail at the right point, and also to strengthen the part 1, a rabbet is formed across the top of the extreme end of the dovetail 13 17 and a corresponding bridge or shoulder 16 across the top of the recess in part 1. This brings the parts when brought together into horizontal alignment and stays or strengthens the front and rear walls of the dovetail recesses in part 1. By reference to Figs. 5 and 6 it will be seen that the portion of the parts in which the dovetail coupling is located is straight across on its lower face and about semicircular in cross-section, Figs. 1 and 2 showing the lower surface from the coupling to the extreme ends recessed or concaved in cross-section to make the parts 1 and 2 light and to receive well out of the way the other parts of the contrivance.

To lock the coupling, a horizontal mortise or perforation (see 22 in Fig. 5 and 21 in Fig. 6) is made through the dovetail from the recess in part 1 to the recess in part 2 to receive

the leather key 10, as shown in Figs. 1 and 2. The key is used when the contrivance is used as a combined hame and collar fastener, the fixed end of the key being retained by the screw-bolt between the top of the concavity 18 and the combined hook and nut 3. When it is used as a collar-fastener only, plain nuts are used instead of the combined nuts and hooks 3 and 3', the leather key 10 being omitted and the upper fold of the hame-strap passed through the apertures 21 and 22, instead of the leather key, to lock the parts together.

That portion of each part 18 and 18' occupied by and lying between each pair of nuts is concaved or recessed to greater depth up into the parts, one object being to reduce the weight of the parts, another to facilitate locating the martingale-retainer 11 where it will not obstruct the hame-strap and will retain the martingale-strap close to the collar between the collar and the hame-strap passing beneath it. The martingale-strap retained in this manner is never in the way in buckling the hame-strap, and any draft on the martingale cannot draw the hames from the collar. Another object of these sub-recesses or concavities 18 and 18' is that at their extreme ends they form shoulders 15 and 15', against which abut the combined hooks and nuts 3 and 3', made of wrought metal and adapted to receive the links 6 in the lower ends of the hames 7, which may be closed in the links, as shown in Fig. 1 at 3, to prevent the hames from becoming unhooked. The combined hooks and nuts 3 and 3' each consist of a common square nut having an integral extension projecting from one of its edges flush with the nether surface and bent to form a hook. The hook extension, being of less thickness than the nut, forms a shoulder corresponding to and adapted to bear against the shoulders 15 and 15'. (See Fig. 1.)

The martingale-retainer 11 (shown in perspective in Fig. 4) I prefer making of a single piece of sheet metal cut and bent to the form shown, the ends being provided with the perforation 23 23, through which pass the screw-bolts 8, by which it is firmly secured in the concavity 18' of part 2.

The ease with which plain nuts can be substituted for the combined nuts and hooks 3 and 3', the leather key 10 removed, and the upper fold of the common hame-strap inserted to lock the joint makes apparent the ready adaptability of the fastener as a collar or combined collar and hame fastener.

The large broad surface offered to the key or hame-strap at the joint or coupling reduces the wear of the key to the minimum and makes a perfect unyielding lock.

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

1. In a collar-fastener, the combination of part 2, provided at its joint end with a dove-

tail extension loosely fitted to slide vertically into a corresponding recess in the joint end of part 1, a rabbet across the top of the extreme end of the dovetail extension, a corresponding shoulder across the recess, adapted to impinge on the bottom of the rabbet, that portion of the parts in which the dovetail coupling is located being straight across on its lower face and convex in cross-section on its upper face, the nether surface of each part from the coupling portion toward its extreme end concave in cross-section, and a horizontal mortise through the dovetail coupling from the concavity in one part to the concavity in the opposite part, adapted to receive the upper fold of a hame-strap, substantially as shown and described.

2. In a combined collar and hame fastener, the combination of parts 1 and 2, separably coupled together and having the concavities 18 and 18' in their nether surfaces and the shoulders 15 and 15', and the combination hooks and nuts 3 and 3', each consisting of a common square nut having an integral extension projecting from one of its edges flush with the nether surface of the nut and bent to form a hook adapted to engage the links in the ends of the hames, the hook extension of less thickness than the nut to form a shoulder corresponding to and adapted to bear against the shoulders 15 and 15', substantially as shown and described.

3. In a combined collar and hame fastener, the combination of part 2 and part 1, separably coupled together, each attached to the lower end of a half of the collar by a pair of screw-bolts 8, the heads seated in counter-sinks in double washers 9, part 2 having in its nether surface the concavity 18' and the shoulder 15', and the martingale-retainer 11 having the perforations 23 23 to loosely receive the screw-bolts and seated in the concavity, one of the screw-bolts provided with a combined nut and hook 3', adapted to engage the link in lower end of hame and bear against the shoulder 15', part 1 having a similar shoulder and combined hook and nut, substantially as shown and described.

4. In a combined collar and hame fastener, the combination of parts 1 and 2, attached to the lower ends of the halves of a collar, part 2 having a dovetail extension fitted loosely to slide vertically into a corresponding recess in part 1, a rabbet across the top of the extreme end of the dovetail extension, a corresponding shoulder across the recess, adapted to impinge on the bottom of the rabbet, a horizontal mortise through the dovetail extension and walls of the recess, adapted to receive a locking-key, part 2 having the concavity 18' and the shoulder 15', the martingale-retainer 11, seated in the concavity, the combined nut and hook 3', adapted to bear against the shoulder 15' and engage the link in lower end of hame, part 1 having the con-

cavity 18 and the shoulder 15, the combined
nut and hook 3, adapted to engage the link 6
and the hame 7 and bear against the shoul-
der 15, and the leather key 10, one end fixed
5 in the concavity, the other adapted to be
inserted through the mortise in the dovetail
coupling, substantially as shown and de-
scribed.

Signed at Blair, in the county of Wash-
ington and State of Nebraska, this 28th day 10
of April, A. D. 1892.

JOSEPH C. WEINMAN.

Witnesses:

WM. FABER,

C. SCHMACHTENBERG.