

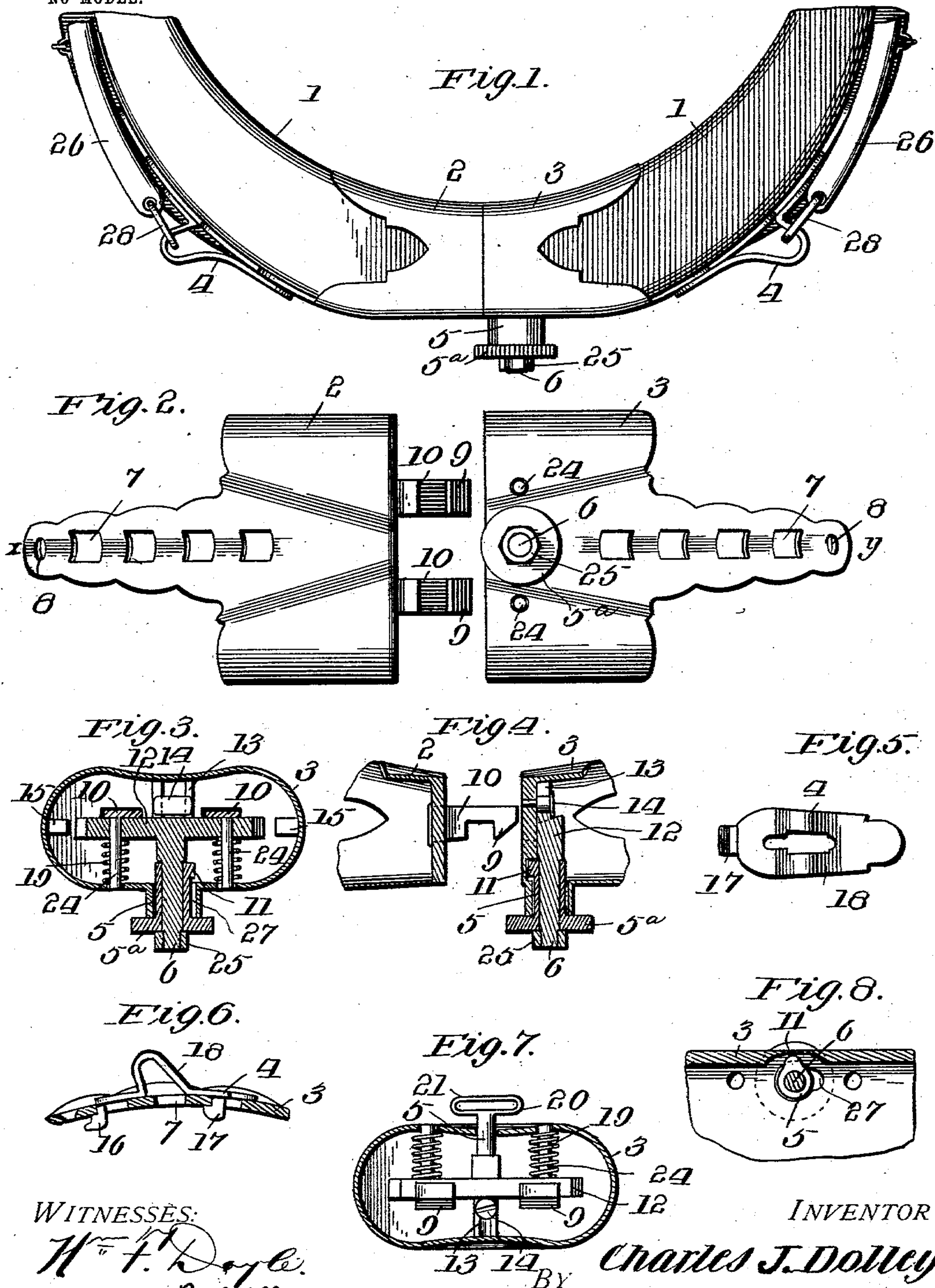
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C. J. DOLLEY.  
HORSE COLLAR AND HAME FASTENER.

APPLICATION FILED JUNE 9, 1902.

NO MODEL.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CHARLES J. DOLLEY, OF JACKSON, MICHIGAN.

## HORSE-COLLAR AND HAME-FASTENER.

SPECIFICATION forming part of Letters Patent No. 743,624, dated November 10, 1903.

Application filed June 9, 1902. Serial No. 110,763. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES J. DOLLEY, a citizen of the United States, residing at the city of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Horse-Collars and Hame-Fasteners, and the following is a specification thereof.

My invention relates to improvements in horse-collars and hame-fasteners, in which the collar is composed of parts joined together at the lower side; and the objects of my said improvements are to provide, first, a strong and rigid connection between the separate parts of said collar; second, to provide one which automatically joins said parts together; third, to provide means for quickly locking and unlocking said joint to prevent its becoming disconnected accidentally; fourth, to provide means for connecting the hames together, and, fifth, to provide means for adjusting, lengthening, and shortening the hames when desired, further objects being apparent from the following description. I attain these objects by the construction illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a portion of a horse-collar and hames, showing my improvement thereon. Fig. 2 is a plan view of the two caps forming the joint of the collar, being shown disconnected. Fig. 3 is a section view of cap 3, showing the latch and locking device contained therein. Fig. 4 is a section view of the two caps and the latch and locking device, taken on the line  $x y$  of Fig. 2. Fig. 5 is a plan view of one of the metal straps by means of which the hames are attached to the caps. Fig. 6 is a side view of said strap, showing a section of the cap and of the hames. Fig. 7 shows a variation in which the latch is operated from above the cap. Fig. 8 is a detail of the means by which the latch is locked and unlocked.

In the said drawings similar letters and figures of reference refer to similar parts throughout the several drawings.

In my said horse-collar I employ a collar of any usual construction having an opening between the side members at the bottom or beneath the horse's throat, and I have represented these side members by the numerals

1 1. Over the lowermost ends of these side members and where they are brought together in use I place the metal caps 2 and 3. These caps serve several useful purposes. One is to protect said ends from wear, another is to stiffen the parts and prevent the collar being drawn together under strain, and another is to provide large flat surfaces where the joint is made, which make the joint more rigid and firm. The said caps also furnish the support for the connecting and locking means for the collar and hames. Projecting from the face of one of said caps, as 2, are two or more tongues 9 of suitable size and strength. These tongues have one side beveled, as shown in Fig. 4, for the purpose of raising the latch, hereinafter more particularly described. At the portion 10 in said tongues are cut recesses or notches 10. These are designed to receive the latch 12, hereinafter mentioned. In the face of the cap 3, adjacent to said cap 2, are openings of suitable size to permit the said tongues to pass within the said cap 3. On the inside of said cap and adjacent to the interior wall thereof is located a latch 12, which is designed to be moved by the beveled edge of said tongues whenever said tongues are forced within said cap 3 and to be spring-pressed into the notches 10 of said tongues to prevent the withdrawal of said tongues from said cap. Said latch is substantially rectangular in cross-section and has projecting from the upper side thereof the bifurcated member 13, and in the slot formed by the members of said 13 is located the capped post 14, which serves as a guide for the said latch in its movement up and down. Projecting from the underside of said latch 12 are the two pins or posts 24 24. These said posts serve merely as cores, about which are placed the coiled springs 19 19 to return the latch to its original position whenever it has been forced downward by any means. At a middle point in said latch is also the downwardly-extending post 6. This post extends entirely through the outer wall of said cap, is threaded at its outer end, and has the nut 25 thereon. Journaled upon said post 6 and between the said nut 25 and the said latch 12 is located the hollow locking member 5. The middle portion of said locking member 5 is round in cross-section and fitted into a round opening in the wall of the cap,



in which hole it revolves freely upon the post 6. On the inner end of said part 5 the extension 11 is constructed to serve as a tumbler. This tumbler 11 is such a distance from the latch 12 that it contacts with the interior side of the wall of the cap when the latch is in the engagement with the notches 10 in the tongues 9. In the interior wall of said cap 3 is formed a recess 27 of a suitable size to receive the said tumbler 11 when it is rotated until the tumbler is directly in line with said recess. By this means whenever it is desired to unlock said joint the said locking member 5 is rotated, by means of the milled knob 5<sup>a</sup>, until the tumbler 11 is directly over the recess 27, and the said latch is then pulled downwardly by means of said knob 5<sup>a</sup> until the tongues 9 are released from said latch 12. Whenever it is desired to connect the said collar for use, the parts are forced together, the tongues on the cap 2 moving the latch until it passes beyond the shoulder in said tongues, and the springs 19 force the latch into the said notches 10 10, and the said collar is properly connected. If it is then further desired to lock the said parts together, so that there is no danger of their becoming disengaged or unlatched by accident, the knob 5<sup>a</sup> is turned until the tumbler rests against some other portion of the inner side of the said cap not coincident with the recess 27.

In Fig. 7 I have shown a variation in which the latch 12 springs upward to let the tongues 9 pass thereunder, and the knob 20 is located upon the upper side of the cap 3, and thus inside the collar. The locking device may be omitted and the said knob made with a slot therein, as 21, to receive the strap holding the neck-yoke or holdback straps, if desired. It may be thought by some that this style of construction is more desirable as presenting no projection or knob on the outside of the collar to catch on objects.

In order to connect the hames together without requiring a leather strap, as is customary, I have made the openings 7 7, &c., in the outer surface of the caps 2 and 3. Fitted into these holes are metal straps 4 4. These metal straps are formed, as shown, with portions to rest upon the outer surface of the caps and to conform to the contour thereof. In the middle portion at 18 they are formed into a loop shape to receive the strap-ring 28, ordinarily found at the lower ends of the hames. To attach the said straps 4 4 to the caps, they are formed with the two L-shaped projections 16 and 17 of the shapes shown, with the foot of the L-shaped projection extending in the direction of the strain upon said strap. By this construction the said straps 4 4 are connected with the said hames, as aforesaid, are then inserted in the openings in the caps therefor, and the hames are next fastened together at the top by a strap or any other suitable means, and when the said collar is closed in the manner above

described the hames are held securely by the said caps and require no other or additional device to connect them. To increase or decrease the length of said hames when desired, the hames are unfastened at the top, the straps 4 4 changed to two other holes in said caps, as desired, to secure the proper length, and the said hames again fastened together at the top. By this construction it will be seen that when the collar and hames have once been adjusted for the horse upon which it is to be used it will be unnecessary to again unbuckle the straps or any other connections thereof in use, except solely the mechanical joint I have above described, which can be done by turning the said knob 5<sup>a</sup>, making the operation thereof very quick and simple and avoiding all trouble and annoyance with a breast-strap.

The holes 8 8 in the caps are designed to admit bolts for attaching the said caps to the collar. The lugs 15 15 are shoulders formed upon the interior of the cap 3 to rest against the collar and prevent the cap being forced upon the collar far enough to interfere with the working of the parts located therewithin.

I have not shown complete collars and hames, because the hames and collars may be of any usual construction, and my said device is adapted to fit any of the makes of collars and hames now in general use.

The openings in the straps 4 4 are designed especially to lighten said parts and for ornament, and the shape of the outer edges of the caps may be of any suitable design which conforms to the construction described.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is the following:

1. In a horse-collar, the combination with the side members thereof, of a cap disposed upon the lower end of each of said members, a latch slidably mounted within one of the caps and having oppositely-disposed extensions, one of the said extensions bifurcated and the other piercing the said cap, a fixed projection disposed within the said cap in the path of movement of the bifurcated extension of the latch for guidance of the latter, the other cap having a projection for engagement with the latch, and means rotatably mounted upon one of the extensions of the latch to lock the second-mentioned projection in engagement with the latch.

2. In a horse-collar, the combination with the side members thereof, of a cap disposed upon the lower end of each of said members, a latch slidably mounted within one of the caps and having a bifurcated extension upon one side thereof and a series of extensions upon its opposite side, a fixed projection disposed within the said cap and in the path of movement of the bifurcated extension of the latch for guidance of the latter, the middle extension of said series piercing the cap, springs encircling the other extensions of



said series, a member rotatably mounted upon  
said middle extension and having an off-  
standing projection for engagement with the  
interior of the cap to lock the latch against  
5 movement, and the other cap having a pro-  
jection for engagement with the latch mech-  
anism, the last-mentioned extensions of the

latch piercing the first-mentioned cap upon  
engagement of the last-mentioned projection  
with the latch.

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