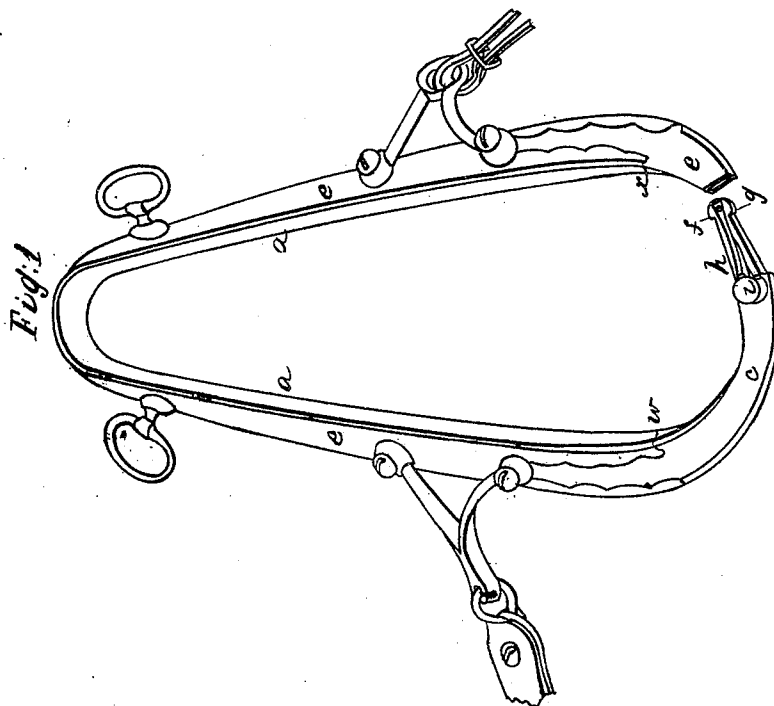
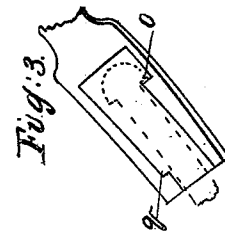
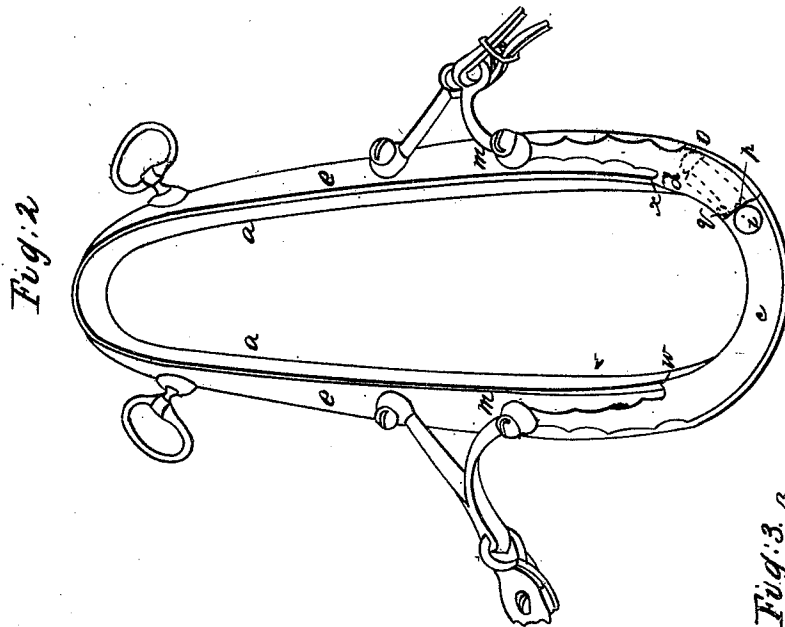


J. R. LINDNER.
HORSE COLLAR.

No. 9,990.

Patented Sept. 6, 1853.



UNITED STATES PATENT OFFICE.

JOSEPH R. LINDNER, OF NEW YORK, N. Y.

HORSE-COLLAR.

Specification of Letters Patent No. 9,990, dated September 6, 1853.

To all whom it may concern:

Be it known that I, JOSEPH R. LINDNER, of New York, in the State of New York, have invented an Improvement in Horse-Collars, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known and of the usual manner of making, modifying, and using the same.

My invention consists in so forming the hame plate that it shall add security to such collar by its spring; and also in combining with such spring hame-plate a lock with triple fastenings, all of which are described as follows: In place of the common hames, I employ a flat piece of wrought iron, (*e*, *e*,) bent into the form of the collar, and "sprung" a little, so that its ends, when free, would not meet, or would pass by each other when forced directly inward; and this hame-plate is the main stay or support of the whole collar. The collar part, or the padded or stuffed portion (*a*, *a*,) is secured to this hame-plate, and the lower parts of the collar are firmly bound to the hame-plate by the lock pieces (*c*, *d*,). These lock pieces are strong plates of iron, forming the base of the collar and the lock. They are shown in Figure 1 as open or detached; and in Fig. 2, as closed. Fig. 3 is a detached view of the lock plate.

The upper parts of the lock-pieces are formed into sheaths, which receive and bind the lower portions of the collar at (*w*, *x*). The lower parts form the lock. The part (*d*) is that which contains the socket and catches; and the part (*c*) contains the bolt or tongue to be inserted into the socket. This bolt is provided with two notches on its extremity (*f*, and *g*,) which lock with the catches in the socket. These catches in the socket are shown at (*q* and *o*). The notch (*f*) locks in the catch (*q*) when the collar is expanded to its limit without opening; and the notch (*g*) locks in the catch (*o*) when the collar and lock are closed. As a source of additional security, the spring-catch (*h*) is used, thus making a triple fastening for the collar. When the collar is entirely closed, the spring (*h*) locks in the socket upon the catch (*r*); and when the stud (*i*) attached to the spring (*h*) is pressed inward, the spring is liberated; and from the outward spring of the hame-plate the collar opens slightly, but is still detained

by notch (*g*) and catch (*r*). In order to disengage this fastening, which depends upon the outward and downward spring of the longer bow of the hame-plate, this spring is counteracted by a reverse pressure, and the collar opens by the outward spring until it is arrested by the locking of notch (*f*) with the catch (*q*). At this point of expansion of the collar, the spring of the longer bow of the hame-plate is upward, outward, and backward, and is to be overcome by reverse pressure in order to open the collar entirely. This last lock is important, as in the mere expansion of the collar to pass it over a horse's head, a jerk might open the collar entirely, and from its spring it is then somewhat inconvenient to close it. It will be seen that this triple fastening has a definite relation to the varying spring of the collar or its hame-plates in their different positions or degrees of expansion. The lock-plates are thrown forward so as to leave a space of two inches more or less, between them and the horse's breast, and this allows room for the pole strap and martingale to be attached directly, without the usual fixtures of rings for such purpose: that is, the pole-strap and martingal are merely wrapped around the lock, and buckled, the lock-plates being made very smooth and rounded on their edges to prevent the wear of the straps. The lock-plates are made either separate from, or in one piece with the hame-plates. The first made is preferable, especially for expensive harness, as in case of any injury to the lock-plates or fastenings, or to the hame-plates, the repair is more readily made, than when they are separable. They are shown in the drawings as separable, and are secured in place to the hame-plates by the screws (*m*, *m*).

One advantage of my improvement, as above set forth, consists in the use of the collars for either right or left harness. In all double harness in use, the collars and mountings are made right and left, but the pole-strap and martingale being merely wrapped around the lock-plate, accommodate themselves to either side, without special rings or fixtures for their attachment.

The advantages of my improvement are more conspicuous in double harness; but it is intended also for single harness.

I would here remark that the position of

the notches and catches in my triple fastening may be changed somewhat, and yet retain the same relation to the varying spring of the collar, and without altering the character of the invention.

I claim—

1. The union of the hame plates and collar, in combination with the lock plates, substantially as set forth.

2. I also claim the triple fastening of the lock plates, in combination with the outward and backward spring of the hame plates, substantially as above set forth.

JOSEPH R. LINDNER.

Witnesses:

CH. L. FLEISHMAN,
M. C. GRITZNER.