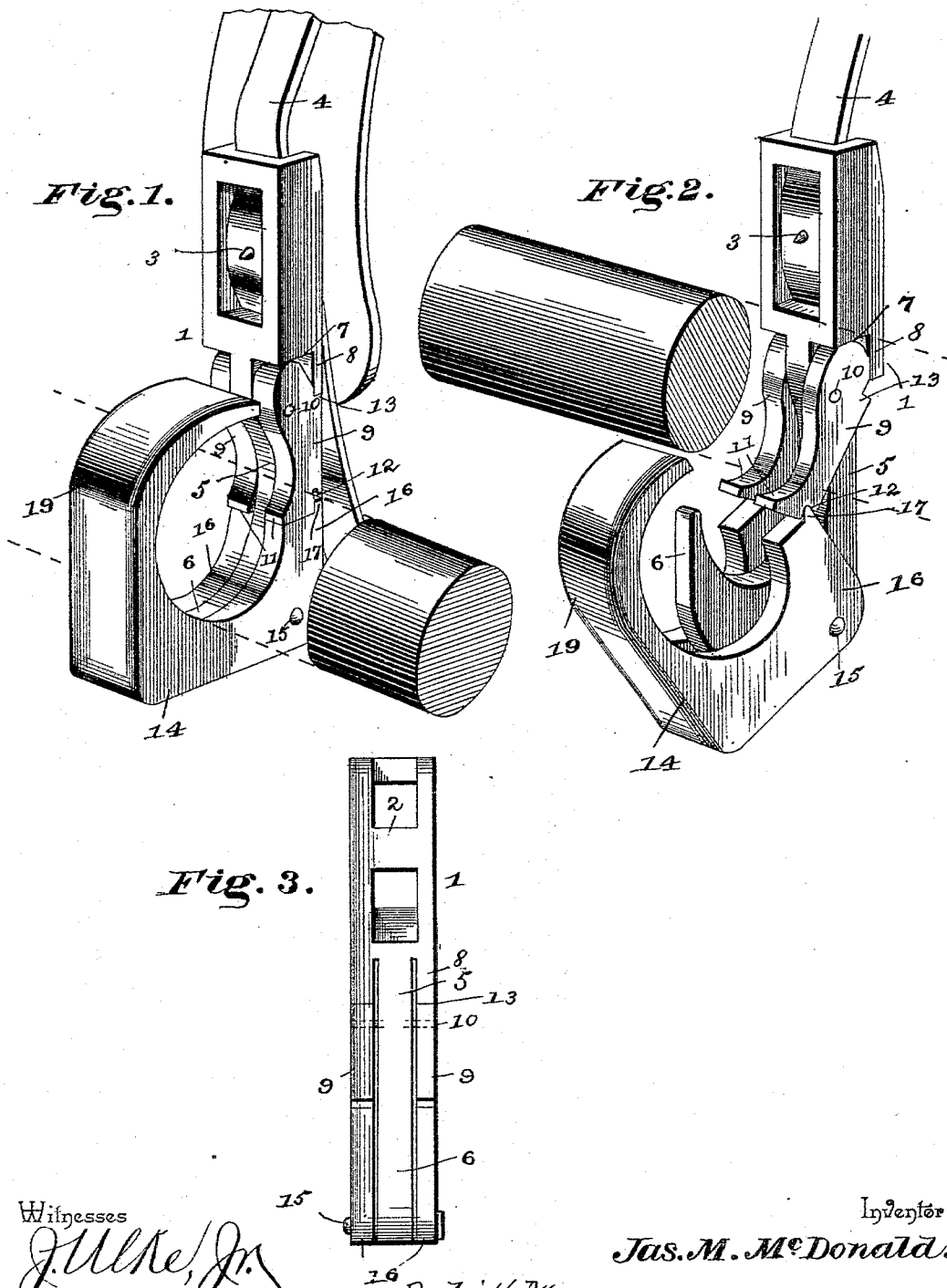


(No Model.)

J. M. McDONALD.
SHAFT TUG.

No. 490,036.

Patented Jan. 17, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

JAMES M. McDONALD, OF LAKE CHARLES, LOUISIANA.

SHAFT-TUG.

SPECIFICATION forming part of Letters Patent No. 490,036, dated January 17, 1893.

Application filed June 25, 1892. Serial No. 438,018. (No model.)

To all whom it may concern:

Be it known that I, JAMES M. McDONALD, a citizen of the United States, residing at Lake Charles, in the parish of Calcasieu and State of Louisiana, have invented a new and useful Back-Band Buckle, of which the following is a specification.

This invention relates to certain new and useful improvements in shaft loops adapted to be attached to a back-band or harness saddle, and consists of the construction and arrangement of the parts thereof, as will be more fully hereinafter described and claimed.

The object of the invention is to design a shaft loop of that class into which the shaft can be pushed sidewise and when assuming a seat in the loop will automatically close the fastening parts thereover and hold said parts so long as it is in engagement with the loop, and prevent dropping of the same out of said loop by accident or otherwise, and still be in position to be readily detached when desired.

In the drawings:—Figure 1 is a perspective view of the device as it appears when closed and showing the manner in which the device is engaged by the shaft. Fig. 2 is a similar view of the device shown open, and as about to be engaged by the shaft. Fig. 3 is a rear elevation of the improved device.

Similar numerals of reference are employed to indicate corresponding parts in the several figures.

Referring to the drawings, the numeral 1 designates a slide buckle having a cross bar 2, with a stud 3, adapted to be engaged by a strap 4 in connection with the back-band or harness saddle, and integrally depending from said buckle is an arm 5 having the lower end thereof bent into hook shape as at 6, and increased in width at this point to resist strain and wear, the said arm is reduced in thickness and is somewhat flattened, and extends from the buckle centrally. At the point where the arm 5 connects with the lower portion of the buckle 1, shoulders 7 are formed and integrally depending over the rear portion of said shoulders are tongues 8. The ends of dogs 9 are seated adjacent to said shoulders 7 and pivotally connected as at 10, to opposite sides of the arm 5, and have toes 11 formed at the lower end thereof with recesses 12, to provide shoulders in the rear thereof for a purpose

which will hereinafter appear. The upper rear portion of the said dogs are formed with shoulders 13 adapted to be engaged by the aforesaid tongues 8, to prevent the said dogs from moving rearward beyond a predetermined point. The front edges of the said dogs are curved or slightly concaved and somewhat approximate the contour of the adjacent edge of the arm 5. A head 14 is pivotally connected to the lower hooked end of the arm 5, at the rear portion thereof as at 15. The said head 14 is bifurcated to form arms 16 between which the curved end 6 of the arm 5 is movably mounted and the rear portions of the said arms 16 are formed with shoulders 17, and upwardly projecting lugs 18, said shoulders and lugs adapted to be engaged by the toes 11, and recesses 12 of the dogs 9. The head 14 is also formed with an upwardly projecting curved arm 19, which overhangs the arms 16, and the upper concave surfaces or edges of the arms 16 are gradually continued and merged into the said arm 19, and the upper edge of the hooked end 6 of the arm 5 is also curved in a similar manner so that a rounded opening or seat may be formed for the reception of the shaft ends. When the device is mounted in position the lower end of the strap 4 is secured to the girth and thereby the loop is held in proper position.

When the loop is positioned to receive the shaft the parts thereof will be arranged as shown by Fig. 2, and the curved arm 19 of the head 14, will be drawn outward from the arm 5, and the dogs 9 will also be moved outward by the engagement of the lugs 18 with the recesses 12. As soon as the shaft end is inserted through the opening between the free end of the arm 19 and the adjacent portion of the arm 5, it will strike the upper projecting edges of the dogs, and force the same backward, at the same time closing the curved arm 19 against the arm 5 and the adjacent portions of the upper ends of the dogs 9. This closed position of the parts will be sustained as long as the shaft is in connection therewith, because the diameter of the shaft end is such as to fill the seat or opening formed by said parts sufficiently to hold the same in locked position. When it is desired to release the shaft from the loop the arm 19 of the head 14 is drawn outward thereby elevating the shaft

for the purpose of disconnecting the same, and readily assisting in its disengagement.

The device as set forth will hold the shaft permanently and securely, and will readily
5 permit the same to be disconnected or drop out after the horse is unhitched, and falls open and remains open until the shafts are again engaged therewith.

The device entire is adapted to be made of
10 any suitable metal and may be covered with leather if so desired, and is especially adapted to be employed in connection with a single harness. The head 14 being pivoted at the rear as shown, will normally tend to gravitate
15 outward or in open position, as will be readily understood.

Having thus described the invention, what is claimed as new is:—

1. A shaft loop having a rigid arm with dogs
20 pivoted thereto, and a gravitating head movably connected to said arm, and having an upwardly extending curved arm, and also pro-

vided with rear shoulders engaging the lower ends of said dogs, substantially as described.

2. In a shaft loop, a slide buckle having a
25 depending curved arm and tongues on the upper portion of said arm, dogs pivotally connected to each side of the said arm having recesses and toes at the lower portion thereof and shoulders at the upper part of the same.
30 and a gravitating head movably connected to the aforesaid arm and having shoulders and lugs to engage the toes and recesses at the lower ends of said dogs and an upwardly projecting curved arm, all of said parts being
35 combined for automatic action, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES M. McDONALD.

Witnesses:

A. C. WILLIAMSON,
A. A. WENTZ.