

F. H. McFARLAND.
 BALE TIE BUCKLE.
 APPLICATION FILED FEB. 10, 1911.

1,012,402.

Patented Dec. 19, 1911.

Fig. 1.

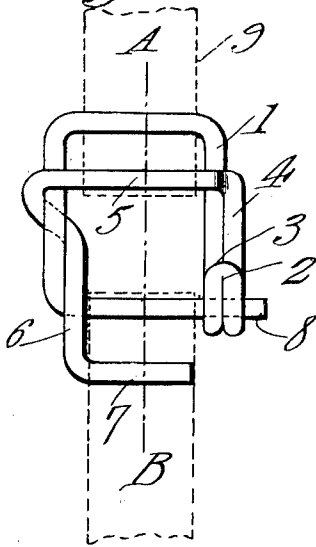


Fig. 2.

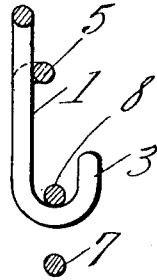


Fig. 3.

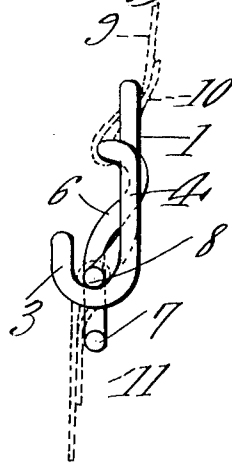


Fig. 6.



Fig. 4.

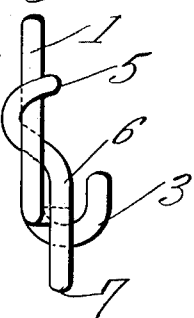
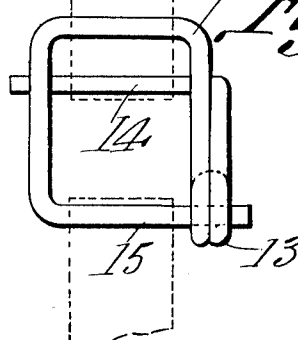


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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BALE-TIE BUCKLE.

1,012,402.

Specification of Letters Patent.

Patented Dec. 19, 1911.

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To all whom it may concern:

Be it known that I, FRANK H. McFARLAND, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented a new and useful Bale-Tie Buckle, of which the following is a specification.

This invention relates to buckles for use in connection with bale ties, its object being to provide a simple and compact buckle which is cheap to manufacture and which serves efficiently to hold the end portions of the tie securely connected.

A further object is to provide a buckle formed from a single length of wire and to which the ends of the tie can be readily connected.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings:—Figure 1 is a front elevation of a buckle constructed in accordance with the present invention, portions of the tie connected thereto being indicated by dotted lines. Fig. 2 is a section on line A—B Fig. 1. Fig. 3 is an elevation of one side of the buckle. Fig. 4 is an elevation of the other side thereof. Fig. 5 is an elevation of a modified form of buckle. Fig. 6 is a side elevation of the buckle shown in Fig. 5 and showing the position of the tie thereon.

Referring to the figures by characters of reference, 1 designates an inverted substantially U-shaped frame formed in a single length of heavy wire, and having a hook at the free end of one of the sides thereof. This hook is formed by first folding the wire, as indicated at 2, and then bending the fold to form the hook which has been indicated at 3. A portion of the wire is extended from this hook 3 and along the adjacent side of frame 1, as shown at 4, and is

then extended transversely of the frame to form an engaging bar 5. The wire is then wrapped about the other side of the frame 1 and merges into an arm 6 terminating in a finger 7 extending perpendicularly from the arm. This finger is parallel with a tie engaging bar 8 formed by the other end of the wire and which extends back of the arm 6 and is adapted to engage the hook 3.

In using the buckle, one end of the tie, which has been indicated by dotted lines at 9, is threaded between the intermediate portion of frame 1 and the bar 5 and is then looped back through the frame, as shown at 10 in Fig. 3. Said tie is then drawn around the bale and, while the bale is under pressure, the other end of the tie is looped, as shown at 11 in Fig. 3, and slipped onto the bar 8. The free end portion of the bar is then placed in engagement with the hook 3 and, when the bale is relieved of pressure, it will expand until limited by the tie, it being understood of course that the ends of the tie will be held with sufficient pressure against the bale to prevent the loops from pulling off of the bars 5 and 8 engaged by them.

It will be seen that by utilizing the finger 7, a bend is formed in the meeting portions of the loop 11 and a corresponding bend is also formed in the meeting portions of the loop 10 by arranging the bar 8 and the intermediate portion of the frame 1 in the particular relation shown and described. By reason of these bends, the loops are maintained closed when the tie is subjected to the expansive action of the compressed bale and there is therefore no danger of the tie pulling off of the buckle.

Instead of forming the buckle in the shape shown in Figs. 1 to 4 inclusive, it can be made without the arm 6 and the finger 7, and as illustrated in Fig. 5. In this figure, the frame has been indicated at 12 and the hook at 13, there being a loop engaging bar 14 formed by one terminal portion of the wire and extending across the frame at an intermediate point, and another loop engaging bar or arm formed by the other terminal portion of the wire as shown at 15, and adapted to engage the hook 13. When this modified form is employed the upper loop of the tie is given a bend similar to that shown at 10 in Fig. 3. The lower loop,

however, is held in engagement with the buckle by reason of its frictional engagement with the bale, such engagement being sufficient to prevent the tie from slipping
5 on the arm or bar 15.

What is claimed is:—

1. A bale-tie buckle formed of a length of wire into a quadrangular frame having two side bars, one of said bars terminating in a
10 hook, a bale tie clamping bar forming a fixed connection of said bars at one end of said frame, a bale-tie engaging bar at the other end of said frame integral with one of said side bars and having a free end
15 adapted to be brought into engagement with said hook by the strain of a bale-tie, and an integral member extending from said hook to a point intermediate the ends of said side bars, then bent over the adjacent side bar and transversely to said side
20 bar to the other side bar and partly there-around to form a fixed bale-tie engaging member and then extended substantially parallel to the last-mentioned side bar to a

point outside of said first-mentioned bale- 25 tie engaging member and then bent transversely to form a bale-tie clamping member.

2. A bale tie buckle formed of a single piece of wire and having a portion thereof doubled upon itself to form a side guard 30 bar, said doubled portion bent to form an end guard, one arm of said wire bent at right angles to the side bar to form a transverse bar, the other arm of said wire bent at right angles to said side bar to form a 35 transverse bar, then back to form a longitudinal bar, then bent to form a second transverse bar, the free end of said second transverse bar extending past the end guard and adapted to cooperate therewith 40 to prevent spreading of said buckle.

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

FRANK H. McFARLAND.

Witnesses:

PIERRE C. LEVY,
F. A. REGNY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."