

UNITED STATES PATENT OFFICE.

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REEL.

SPECIFICATION forming part of Letters Patent No. 646,941, dated April 10, 1900.

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To all whom it may concern:

Be it known that I, JAMES G. BAILEY, a citizen of the United States, residing at Delavan, in the county of Tazewell and State of Illinois, have invented certain new and useful Improvements in Reels; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in reels by means of which a simple, cheap, and effective mechanism is provided for reeling up wire strands.

More particularly my invention relates to a reel, in combination with other necessary auxiliary mechanism, adapted for use in connection with any suitable movable vehicle for reeling up wire strands—as, for instance, barb-wire, or, in fact, any kind of strand.

In the device I present I seek to attain a perfect result by means of the simplest mechanism possible and such that will accomplish the result in the least possible time and at the expense of the least possible labor.

My invention consists, essentially, of a reeling-frame and friction-wheel and an adjustable wire-guide in combination and suitably supported and other essential and useful details of construction, all of which will hereinafter be more fully and particularly described.

That my invention may be more fully understood reference is had to the accompanying drawings, in which—

Figure 1 is a plan view showing my invention applied to a wagon; Fig. 2, a side elevation of a portion of a wagon and of my reeling mechanism applied thereto. Fig. 3 is a detailed view showing section through the reel proper and other detailed parts.

The following is a description of my invention, in which said description similar letters refer to similar parts in the above figures.

A is a wagon-box supported in the usual manner upon trucks, the wheels thereof being indicated by a a' .

B is a shaft.

B' is a friction-wheel secured to a shaft by means of suitable set-screws or in any other suitable manner, said reel being adapted to bear upon the peripheral face of the wagon-wheel a' . The friction-wheel B' may be made

of any suitable material that will be best adapted for the purpose desired. The shaft B is supported at one side with the boxing b , said boxing being so constructed as to have the proper elevation or any suitable elevation above the edge of the wagon-box, which forms its supports. The said boxing is secured to the wagon-box by means of the hooked clamp-bars $b' b'$, which are adapted to extend down the side of the wagon-box and to be bolted thereto, but may be otherwise secured, if found necessary or desired. Shaft B is supported on the other side of the wagon-bed by means of friction-wheel B', bearing upon the wagon-wheel a' , and by means of such contact of the friction-wheel with the wagon-wheel the shaft B is turned.

F is a bar connected with boxing d at its forward end and secured thereto and, extending rearwardly, bears over and upon collar b^2 , which is loosely carried on shaft B and within which the shaft turns.

G is a hooked bar engaging the rear end of bar F and bearing close up against collar b^2 and extends downwardly alongside of the wagon-box and is hooked underneath it, as shown in Fig. 3, and is secured thereto by means of bolt g . The bar F and hooked bar G, as shown in Figs. 1 and 2, bear upon the upper and rear side of the collar b^2 , respectively, and serve to compel contact between the friction-wheel B' and the wagon-wheel a' . The collar b^2 is provided on the shaft, against which the bars F and G are adapted to bear to exert pressure on the shaft B for the purpose of causing sufficient frictional contact between friction-wheel B' and wagon-wheel a' to cause shaft B to be turned.

C is the reel proper, which may be made in any form desired or of any material. As shown in the drawings, it consists merely of a frame having an axillary opening of such size as to adapt it to fit upon the shaft B, as shown in Fig. 3, and is mounted in the manner as shown in Fig. 3 when ready for operation.

c is a plate provided with a rectangular opening at its central portion adapted to fit upon the correspondingly-formed end of shaft B. The plate c is provided with the lugs $c' c'$, adapted to engage the openings in the outer face of the reel C, the plate c being held up against and in engagement with the reel by

means of a suitable collar and set-screw, a set-screw and collar being provided on the opposite side of the reel to hold it firmly in place. By means of plate *c* being fixed on the shaft in the manner shown it will turn therewith, and the lugs *c' c'* thereof engaging the reel will cause it also to turn with shaft B.

In connection with the reeling mechanism I have provided the adjustable wire-guide E, provided with flanges, journaled upon bar O and so connecting therewith that when the bar is moved back and forth the guide E will be moved therewith.

d is a boxing supported upon the edge of the wagon-box and in place by means of the hooked bars *d d'*, which bear upon the box and extending down on the side of the wagon, to which they are securely bolted.

e is also a boxing supported on brace-bars *e' e'*, which connect with and are bolted to the bars *d' d'*, as shown in Fig. 2. Bar D is adapted to slide back and forth in boxings *d* and *e*.

E' is a handhold fixed upon the end of bar D and is purposed to be grasped by the operator and facilitates in pushing the bar D back and forth, thus shifting guide E, so that as the wire is passed over the guide to the reel and is being wound upon the reel the operator may shift the guide at pleasure to accommodate and regulate the even winding or reeling up of the wire. The guide is made in such form that it will accommodate the passing through of barbed or other wire without being caught or entangled and the wire cannot be readily dislodged therefrom.

In the operation of my invention the various parts are attached to a vehicle in the manner shown in the drawings, and when it is desired to wind up the wire—as, for instance, a strand of barb-wire which has been detached from its position in a line of fence—one end of the strand is attached to some fixed object and the other end is attached to the wire-reel, and as the wagon is driven the frictional contact of the friction-wheel B' with the revolving wheel of the wagon will cause shaft B to be turned, and with it reel C, and thus the wire will be wound upon the reel, and in the progress of the winding the operator or driver will shift the wire-guide back and forward in such a manner as to cause the strand to be evenly wound upon the reel.

I have so provided for the carrying of the reel that it may easily be detached when

wound full by simply removing the collar and set-screw at the end of the shaft and also plate *c*, and when detached may readily be replaced by a new reel-frame, and the reeling operation may then continue.

I do not desire to limit myself to the detailed manner of carrying out the different mechanical auxiliary parts of my invention, but desire to claim, broadly, the combination of a reel suitably mounted to be driven from frictional contact with the wheel of a vehicle and an attached wire-guide in combination therewith, and I may change the form or detailed manner of combining the parts of my invention without materially changing the principle herein shown.

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

1. The combination with a vehicle, of the transverse shaft B, journaled in the fixed boxing *b*, at one end and supported on wheel B', bearing on the vehicle-wheel near to reel and provided with the collar *b²* thereon, the bar F, suitably secured and held at its forward end and the rearward end thereof bearing over the collar *b²* and secured at its rear end by hooked bar G, the detachable reel-frame C, secured from turning on shaft by means of plate *c*, provided with lugs *c' c'*, all substantially as described and shown.

2. The combination with a vehicle, of the transverse shaft B, journaled in the fixed boxing *b*, at one end and supported on wheel B', bearing on the vehicle-wheel near the reel and provided with the collar *b²* thereon, the bar F, suitably secured and held at its forward end and the rearward end thereof bearing over the collar *b²*, and secured at its end by hooked bar G, the detachable reel-frame C, secured from turning on shaft by means of plate *c*, provided with lugs *c' c'*, and the laterally-adjustable guide mechanism, consisting of the wheel E, provided with the convex-faced flanges, the adjustable bar D provided with handhold E', the slotted boxes *d* and *e* suitably mounted and secured to the wagon-bed, all substantially as described and shown.

In testimony whereof I affix my signature in presence of two witnesses.

JAS. G. BAILEY.

Witnesses:

S. M. DONLEY,
N. J. AMES.