

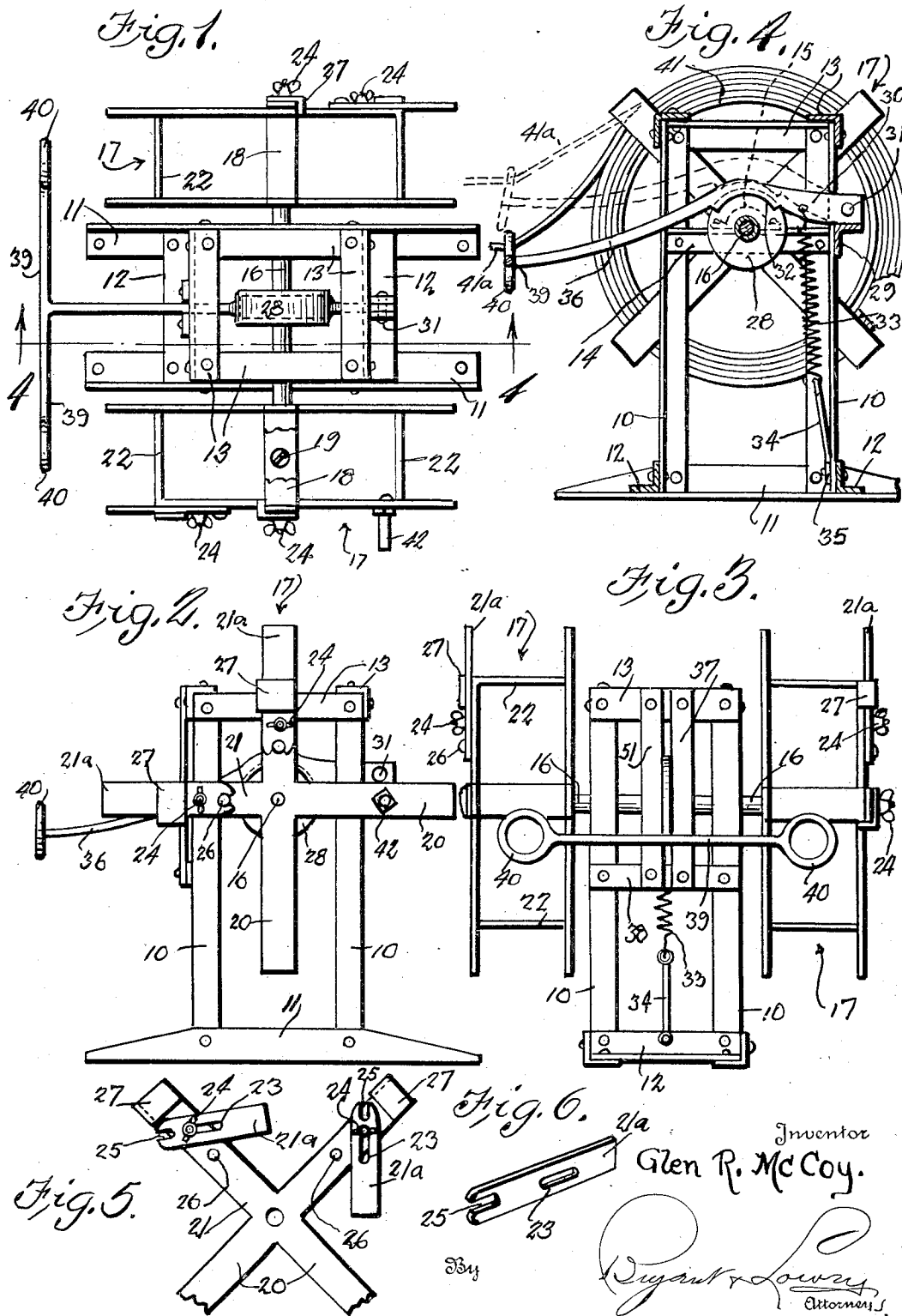
May 5, 1936.

G. R. McCOY

2,039,915

REELING MACHINE

Filed Dec. 11, 1934



Inventor
Glen R. McCoy.

By *[Signature]*
Attorneys.

UNITED STATES PATENT OFFICE

2,039,915

REELING MACHINE

Glen R. McCoy, Wayland, Iowa

Application December 11, 1934, Serial No. 757,045

2 Claims. (Cl. 242—114)

This invention relates to certain new and useful improvements in reeling machines.

The primary object of the invention is to provide a reeling machine wherein wire, rope, cables and the like are wound and unwound from reels with a brake device for the reel controlled in its operation by the length or strand of rope from the reel, the brake device becoming operative when tension on the strand is relieved for bringing the reel to rest so that the extended strand will not become entangled or knotted but will remain in a substantially taut condition.

A further object of the invention is to provide a reeling machine of the foregoing character wherein the reel embodies radiating or spider arms with the outer ends of several adjacent arms at one side of the reel provided with adjustable ends to permit positioning thereof relative to supports of the reel for the wound wire or the like whereby the latter as a coil may be removed from or placed upon a reel.

With the above and other objects in view that will become apparent as the nature of the invention is better understood, the same consists in the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawing and claimed.

In the drawing:—

Figure 1 is a top plan view of a reeling machine constructed in accordance with the present invention, being partly broken away to illustrate the mounting of a reel upon the shaft of the machine;

Figure 2 is a side elevational view;

Figure 3 is a front elevational view, showing the brake operating device having an arm controlled by a wire or other strand located forwardly of each reel;

Figure 4 is a vertical sectional view taken on line 4—4 of Figure 1, with the brake shoe illustrated by dotted lines in its inoperative position with wire being unwound from the reel;

Figure 5 is a fragmentary view of a part of a reel, showing the adjustable arms at the outer ends of a pair of side legs or spiders of the reel; and

Figure 6 is a perspective view of an adjustable arm.

The reeling machine is of such character that the same may be mounted on a truck or other conveyance, or be ground supported and may be constructed of any material desired, the framework thereof being illustrated as being of angle iron construction and of any size desired, embodying four vertical standards supported at

their lower ends by a pair of parallel base bars 11 that are connected by cross braces. The upper ends of the standards 10 are connected by bars 13.

A bar 14 extends between the standards 10 at each side of the frame structure at points spaced from the upper end thereof for the support of bearings 15 in which a shaft 16 is journaled, the shaft extending laterally at each side of the frame structure for the support of a reel 17. Each reel comprises a tubular hub 18 mounted on the laterally projecting end of the shaft 16 and is anchored to said shaft in any convenient manner, such as by means of a stud screw 19 as shown in Figure 1 that passes through the hub 18 for engagement with the shaft. Radial or spider arms 20 and 21 project from each end of the hub 18, and the aligned arms at opposite ends of the hub being connected together at spaced relations to their outer ends by supporting bars 22 upon which the cable or like material is wound. The outer ends of the arms 21 at one side of the reel are provided with movable sections to permit the placement or removal of a wire coil or the like onto and from the reel 17, and as shown more clearly in Figs. 5 and 6 the movable section 21a at the outer end of each arm 21 is provided with a slot 23 intermediate its ends and with which the thumb screw 24 carried by the arm 21 is associated. The inner end of the arm section 21a is provided with a fork 25 to engage the pin 26 on the arm 21 for holding the section 21a aligned with the arm. The outer end of the arm 21 is provided with a side opening strap or clip 27 beneath which the movable arm section 21a is adapted to be disposed to aid the thumb screw and fork connection in holding the section 21a aligned with the arm 21. By loosening the thumb nut 24 and shifting the arm section 21a by means of the screw and slot connection, the fork 25 is disengaged from the pin 26 and the arm section 21a swung to a position inwardly of the outer end of the arm 21 and as will be understood from an inspection of Figure 3, a wire or other coil may be readily removed from the reel 17.

The brake device embodies a disk or drum 28 fixed to the shaft 16 intermediate its ends and centrally of the frame structure and with which a brake shoe is associated. A supporting bar 29 extends between a pair of vertical standards 10 at opposite sides of the frame structure for the support of a brake lever 30 that is pivotally mounted thereon as at 31. The brake lever 30 extends above the brake drum 28 and carries an arched brake shoe 32 for engagement with the brake drum that is normally influenced in a direction for engage-

ment with the brake drum by means of a spring 33 attached at one end to the brake lever 30 and having its other end connected to an arm 34 that is anchored as at 35 to a cross bar 12 of the frame structure. The brake lever 30 carries a forwardly directed arm 36 projecting forwardly of the frame structure that is guided in its vertical movement by a pair of vertical and spaced guide bars 37 anchored to the cross bar 13 at the head of the frame structure and also anchored to a cross bar 38 extending between a pair of vertical standards 10 at opposite sides of the frame structure, this arrangement being clearly illustrated in Figure 3. The forward end of the arm 36 is provided with a cross head 39 with a ring or loop 40 at each end thereof respectively aligned with the reels 17.

The wire or like material 41 wound on the reel 17 has the free end or strand 41a thereof extended through a loop 40 of the brake lever and while pulling tension is placed on the strand 41a, the arm 36 is elevated as indicated by dotted lines in Figure 4 to raise the brake lever 30 to disengage the brake shoe 32 from the brake drum 28 and during which time wire may be freely unwound from the reel. As soon as pulling tension is relieved on the strand 41a, the brake lever 30 is lowered by means of the spring 33 to cause the brake shoe to engage the brake drum and arrest rotary movement of the reel. The brake is entirely automatic in operation and only the desired amount of wire is wound from the reel so that when pulling strains on the strand 41a are relieved, movement of the reel is arrested so that wire or like materials will not become entangled or distorted. It is also intended to use the device as a reeling machine for placing wire or

like material on the reels 17 and in such instances, the reels are manually rotated by means of the handle 42 that may be attached to one of the arms 20 as shown in Figures 1 and 2. It is also to be understood that the reels may be of different sizes if desired.

From the above detailed description of the invention, it is believed that the construction and operation thereof will at once be apparent, and while there is herein shown and described the preferred embodiment of the invention, it is nevertheless to be understood that minor changes may be made therein without departing from the spirit and scope of the invention as claimed.

I claim:—

1. In a reel of the character described, a hub, arms radiating therefrom, coil supports extending between the arms at the opposite sides of the reel, a movable section at the outer ends of two adjacent arms, a screw and slot connection between the movable section and arm and a pin and fork connection between the inner end of the movable section and arm for holding them in alignment.

2. In a reel of the character described, a hub, arms radiating therefrom, coil supports extending between the arms at the opposite sides of the reel, the outer ends of a pair of arms at one side of the reel carrying adjustable tips, a pin and slot connection between the tip and arm, one end of the tip being bifurcated and a pin on the arm adapted to be received in the bifurcated end for holding the tip aligned with the arm and retaining a coil on the reel.

GLEN R. McCOY.