

No. 616,514.

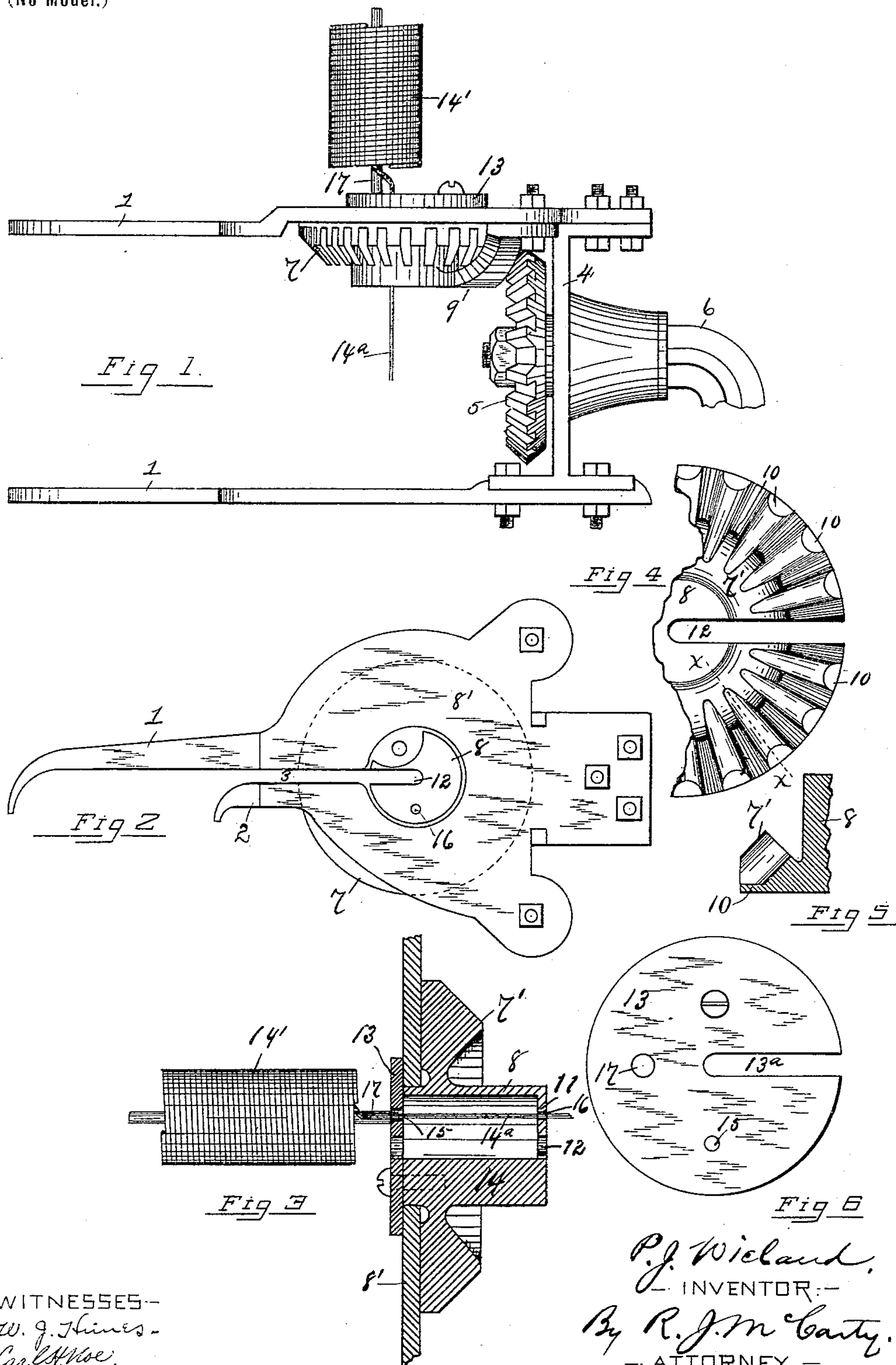
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MACHINE FOR WEAVING STAY WIRES ON WIRE FENCES.

(Application filed July 18, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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MACHINE FOR WEAVING STAY-WIRES ON WIRE FENCES.

SPECIFICATION forming part of Letters Patent No. 616,514, dated December 27, 1898.

Application filed July 18, 1898. Serial No. 686,234. (No model.)

To all whom it may concern:

Be it known that I, PERRY J. WIELAND, a citizen of the United States, residing at Spring Valley, in the county of Greene and State of Ohio, have invented certain new and useful Improvements in Machines for Weaving Stay-Wires on Wire Fences; 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to new and useful improvements in hand-machines for attaching stay-wires to wire fences.

The object of the invention is to provide a machine that is capable of unwinding from the inside of a coil the wire that is to be applied to the line-wires of a fence, thereby making it possible to carry on the machine a larger roll of such wire than is now done.

A further object of the said invention is to provide a twister that can be conveniently manipulated and having the features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a top plan view of my improved wire-twister. Fig. 2 is an elevation of the outside of the frame upon which the twister-wheel is supported. The roll of wire and the driving-wheel and crank are removed from this view. Fig. 3 is a sectional view through the center of the twister-wheel. Fig. 4 is an elevation of a portion of the twister-wheel. Fig. 5 is a sectional view on the line *xx* of Fig. 4. Fig. 6 is an enlarged detached view of the disk or guard for the wire roll.

Similar reference characters indicate the same parts in the several views.

The machine is supported on the line-wires of a fence by the sides of the frame, each of which consists of prongs 1 and 2, the upper one of which projects a substantial distance beyond the lower one and forms a support and guide for the line-wire to enter the slot 3. These sides of the frame are rigidly united to a cross-piece 4, which forms a bearing for the journal of a bevel-gear 5, which is driven by means of a brace 6, a portion of which is broken off in Fig. 1.

The twister-wheel 7 has a hub 8, that projects in through the side 8' of the frame and has a bearing in the strap or journal-support 9, which is bolted or screwed to the inner side of the plate of the side frame.

Special attention is directed to the structural features of the wheel 7. Its teeth 7' are substantially the same as the teeth of wheel 5 from which it is driven, but on the outer face of said wheel the spaces between the teeth are closed up by a wall 10, that extends to the periphery of the wheel or to the end of the teeth. This is clearly shown in Figs. 4 and 5. By thus constructing the twister-wheel it is made to present a uniformly-rounded rim free from notches or projections and against which a line-wire may rest without obstructing the rotation of said wheel. Fig. 3 of the drawings shows a section of the twister-wheel through two opposite teeth 7' 7', while Fig. 5 shows a section of a portion of said wheel on one side of a tooth and in which one of the walls 10 is shown. The inner wall 11 of the hub has a slot 12 extending from the periphery to the center, as has also the wheel itself, in order to permit the line-wires of the fence to enter said wheel. By providing the said wheel with the walls 10 the line-wire is prevented from entering the space between the teeth when placing the machine in position for work, and thus much annoyance and trouble is avoided. In placing the machine in a position for the wheel to receive said line-wire the wheel is turned and the line-wire will enter no space or opening until the slot through said wheel is presented to it.

13 is a disk rigidly attached to the solid part 14 of the hub and closing up the outer side of the open space or chamber in said hub, so that the wire from the roll 14' is not permitted to enter said hub or chamber. The said disk has rigidly attached to it a rod or arm 17, upon which the roll 14' of wire is supported. As shown in Figs. 1 and 3, the end 14^a of said wire unwinds from the inside of the roll. Therefore the said roll may be as large as necessary without interfering with a free feed of the wire therefrom. This greatly facilitates the work of placing the stay-wires and avoids the frequent necessity of supplying the machine with wire and securing the ends of the stay-wires. The disk 13 has a slot 13^a, ex-

tending from periphery to center and which is in line with the similar slot in the hub and side of the twister-wheel. The wire from the roll is threaded through an opening 15 in said disk and through a similar opening 16 in the hub.

In changing the position of the machine from one line-wire to another one of the side arms 1 of the frame is permitted to rest in contact with the line-wire which has just been operated upon, while the other side or arm 1 is moved out to unwind a sufficient amount of wire from the roll to permit of changing or lowering the position of the machine. In thus manipulating the machine the arm 1 that is kept in contact with the line-wire practically acts as a pivotal point upon which the machine is turned for the above purpose.

Having fully described my invention, I claim—

1. In a wire-fence machine, the combination with the side frames having prongs, one of which projects out a substantial distance beyond the other, of a twister-wheel having a hollow hub with wire-openings therein, a disk

provided with wire-openings and rigidly attached to said hub and closing up one end thereof, an arm rigidly attached to said disk and adapted to support a roll of wire, and means for rotating said twister-wheel, substantially as and for the purposes specified.

2. In a wire-fence machine, the combination with the side frames, of a twister-wheel having the space between the teeth closed by an outer wall, and a hollow hub with wire-openings therein, a disk provided with wire-openings and rigidly secured to the outer side of the wheel and closing up the opening in the hub, a rod rigidly mounted on said disk for supporting a roll of wire, and means for rotating said twister-wheel, substantially as and for the purposes specified.

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

PERRY J. WIELAND.

Witnesses:

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