

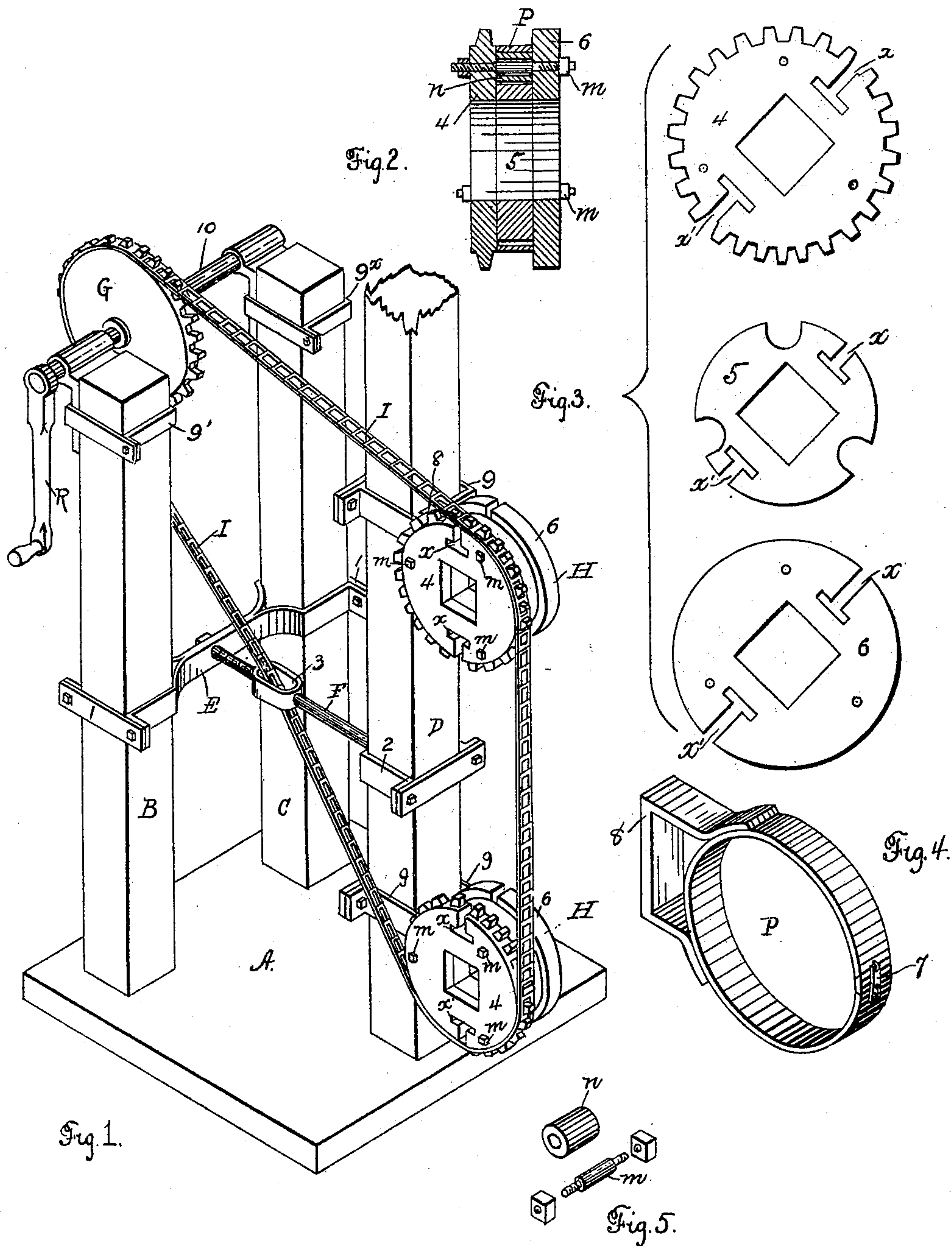
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**T. J. ARMSTRONG.
PORTABLE FENCE MACHINE.**

(Application filed Apr. 4, 1898.)

(No Model.)



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UNITED STATES PATENT OFFICE.

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PORTABLE FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 618,819, dated February 7, 1899.

Application filed April 4, 1898. Serial No. 676,337. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. ARMSTRONG, a citizen of the United States of America, residing near Hammond, in the county of Bourbon, in the State of Kansas, have invented certain new and useful Improvements in Portable Fence-Making Machines, of which the following is a specification.

My invention has relation to improvements in portable fence-making machines; and the object is to provide an improved machine of the kind named and for the purposes intended, whereby the wires or strands of the fence may be expeditiously and strongly twisted to inclose and hold the palings or slats composing the fence, as will be hereinafter fully described and the novelty thereof be particularly pointed out in the claim.

I have fully and clearly illustrated my invention in the accompanying drawings, wherein—

Figure 1 is a perspective of a machine embodying my improvements. Fig. 2 is a central section through one of the twisting sprockets or wheels with the band-bearing and showing one of the roller-bearings. Fig. 3 is a detail view of the respective parts making up the twisting sprockets or wheels. Fig. 4 is a detail view of one of the band-bearings, showing the latch-piece to afford entrance to the wire-slots of the middle piece of the twisting sprocket-wheels. Fig. 5 is a detail of the clamping-bolts on which the roller-bearings are carried.

Reference being had to the drawings, A designates a substantial base or floor-piece of such area and dimensions as to fit it to support and maintain the superstructures thereon and the mechanism carried thereby. In this base A are mortised and secured by any suitable means three strong uprights or standards B, C, and D, disposed substantially as shown in the drawings. The standards B and C are connected by a cross-bar E, having the ends shaped to embrace the sides of the respective standards and formed with ears, as shown, and clamping-pieces 1 secure the bar E to the standards, bolts through the clamping-pieces and ears on the bar being the means employed to effect the purpose. On the standard D is fitted a band 2, suitably clamped thereto, substantially as shown, and

between the cross bar or piece E and the band 2 is a rod F, having one end threaded and engaging in a threaded hole in the bar E, and in the middle of the rod F is an opening 3, through which the driving-chain is passed, as shown in the drawings. It will be perceived that the cross-bar E, band 2, and with them the threaded bar F brace the standards and may be moved up or down on the standards, so that when the chain is passed through the opening 3 that portion of the bar F may be brought into engagement with the chain and the contact therewith effect a tension adjustment of the chain on the respective sprocket-wheels.

H H designate wire-twisting sprocket-wheels, adjustably connected and held to the standard D. These sprocket-wheels are made up of or composed of sprocket-disks 4, a central bearing-disk 5, of smaller diameter than the other parts, and a flange-disk 6, and all three are provided with oppositely-disposed T-slots $\alpha \alpha'$, coincident through the disks and opening at the perimeters thereof, through which the wires are passed. The disks composing these twisting-wheels are secured together by bolts m , passed through them adjacent to the perimeter of the central bearing-disk, and on the middle portion of each bolt is arranged an antifriction-roller n , a portion of the face of each roller being arranged flush with the perimeter of the central bearing-disk, substantially as indicated in Fig. 2 of the drawings. The central portion of these sprocket-wheels may be cored out at the center, as shown, to make them lighter than they would be if made solid. It will be perceived that the construction of these twisting sprocket-wheels result in producing a grooved sprocket-wheel, the groove of which constitutes a bearing-surface for the bearing-band which supports the wheel. The grooved sprocket-wheels H H are secured to the standard in vertical alinement, as shown in the drawings.

P designates a bearing-band fitted on the central groove of the sprocket-wheels and provided with a latch-piece 7 of any suitable make. The object of this latch-piece 7 is to provide means for inserting the strands of the wires in the T-slots of the wheels. By opening the latch-piece and then turning the wheel

until one of the wire-slots registers therewith a strand can be inserted, and then by turning the wheel until the other slot registers with the latch-opening the other strand of wire can be inserted. The latch is then closed, and the wires will be held from escaping outward from the slots. To each of the bearing-bands P is rigidly secured, or it may be formed therewith, a hanger or stirrup 8, which is clamped to the standard D by means of a clamping-band 9, as indicated in the drawings, the bands being made movable on the standard, so that by moving the bands up or down on the standard the twisting wheels or sprockets will be correspondingly moved, and then by tightening up the bands they will be held in the desired position to the lines of strands of the fence.

On the standards B C, in vertically-adjustable bearings 9' 9^x, is mounted a shaft 10, carrying a driving-sprocket G, a crank R being provided to turn it. On the driving-sprocket and extending into engagement on and with the sprockets of the twisting-wheels is arranged a sprocket-chain I, by which the twisting-wheels are rotated.

It is apparent that one or more additional twisting wheels or sprockets may be mounted on the standard D in engagement with the chain in case more than two lines of wire are desired in the fence.

The operation may be stated as follows: The primary or starting ends of the wires are secured by any suitable and well-known means

at the heights and distances apart desired and the sprocket twisting-wheels adjusted accordingly and secured on the standard D. The latch-piece of the bearing-strap is then opened and the wires inserted, as heretofore stated, and held by any well-known means. Then by placing the machine in alinement with the direction of the line of fence a paling may be inserted between the wires, the wheels rotated to make the twist to bind the paling in position, and then another paling inserted and another twist made to bind it in position, and the operation continued, as desired, the machine of course being moved outward as the strands require.

Having thus described my invention, what I claim is—

In a fence-making machine, the combination of a suitable support, lower and upper clamping-bands on the support, bearing-bands supported by the clamping-bands, and provided with a latch-piece, upper and lower grooved sprocket-wheels provided with oppositely-disposed wire-slots, and rotatively held in the bearing-bands, antifriction-rollers in the sprocket-wheels bearing on the inner face of the bearing-bands, a driving sprocket-wheel, and a driving sprocket-chain, substantially as described.

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