(No Model.)

B. C. BRINEY & S. C. GERON.

FENCE MAKING MACHINE.

No. 542,988. Patented July 23, 1895.

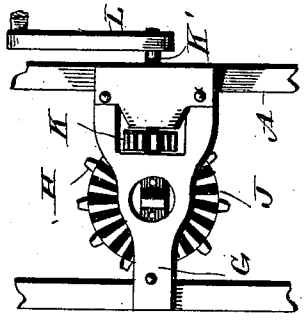

Fig. 3.

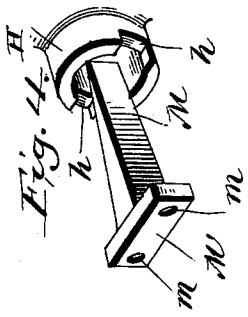

Fig. 4.

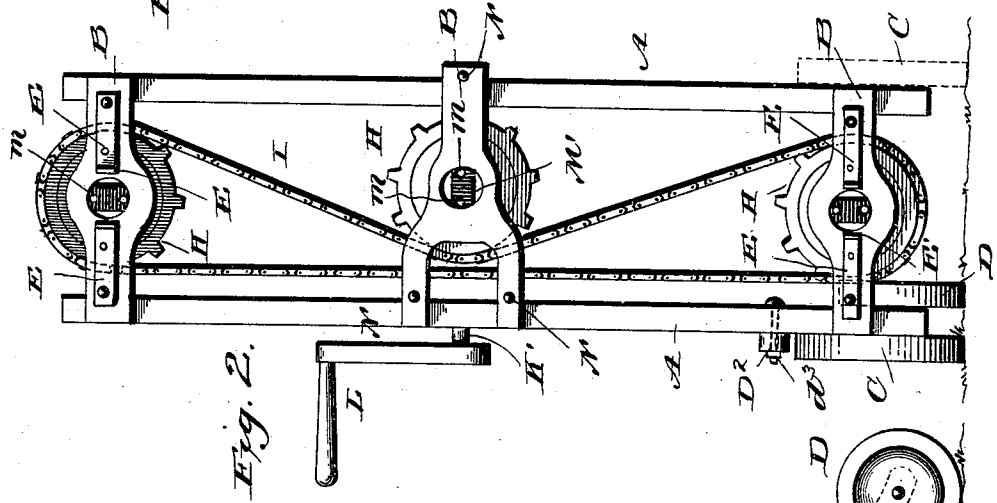

Fig. 2.

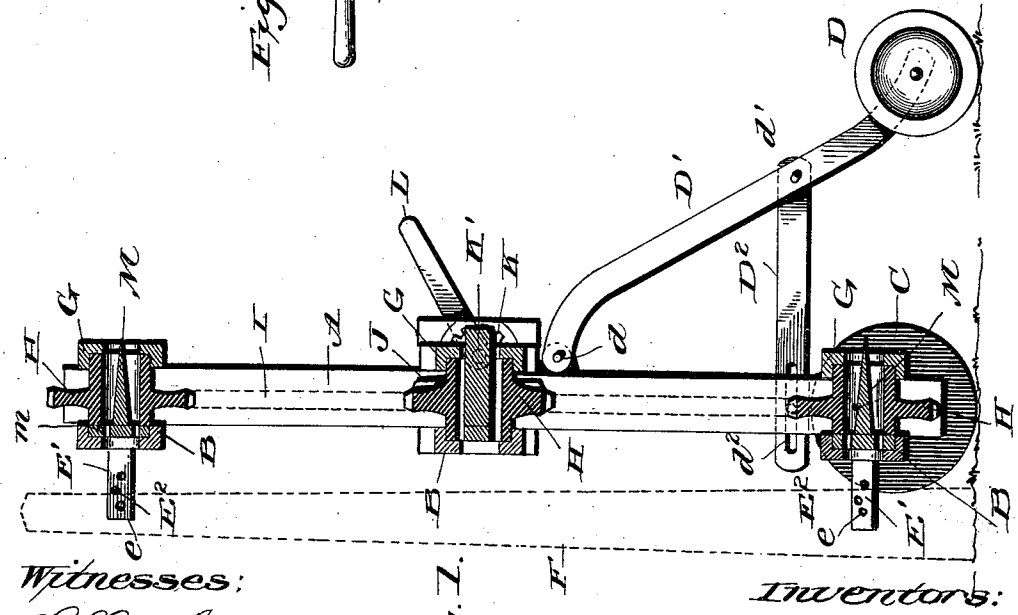

Fig. 1.

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UNITED STATES PATENT OFFICE

BENJAMIN C. BRINEY AND SOLOMON C. GERON, OF PARIS, TEXAS.

FENCE-MAKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 542,988, dated July 23, 1895.

Application filed April 10, 1895. Serial No. 545,215. (No model.)

To all whom it may concern:

Be it known that we, BENJAMIN C. BRINEY and SOLOMON C. GERON, citizens of the United States, residing at Paris, in the county of Lamar, State of Texas, have invented certain new and useful Improvements in Fence-Making Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in fence-making machines of that class in which the device is made portable, so as to be moved from point to point, as may be desired; and it has for its object, among others, to provide a simple and cheap machine of this character, composed of few parts, those readily removable and not liable to injury or derangement in use.

It has for a further object to provide a machine which will separate the wires where they are crossed, and thus adapt it for operating upon and utilizing old wires, a wedge being employed in the twisting-head for the purpose of separating the old twists and causing them to pass through the twisting-eye. The twisting eyes or devices, one or more of them, may be adjustable vertically to space the wires a greater or less distance apart. We provide a picket-gage which is adjustable, so as to provide a greater or less space between the pickets. This gage is so constructed as to adapt the machine for operation in connection with pickets which are wider at the bottom than at the top.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a substantially central vertical section through the machine, the section being taken in the direction of the line of fence. Fig. 2 is an end elevation of the machine. Fig. 3 is a detail in elevation from the opposite side, showing the actuating-gear. Fig. 4 is a perspective detail of one of the wedges and twisting-eyes removed.

Like letters of reference indicate like parts throughout the several views.

Referring now to the details of the drawings by letter, A designates the frame of the machine, consisting of the uprights, suitably spaced and held at the requisite distance apart by means of the cross-pieces B. This frame is designed to be portable and may be mounted upon wheels C, as shown, and provided with a guide-wheel D, carried by the inclined arm D′, pivoted at its upper end to one of the uprights, as at d, and having pivotally connected therewith, as at d', between its ends, the bar D^2, the other end of which is provided with a longitudinal slot d^2, through which passes a bolt, as at d^3, into the upright, and by the adjustment of which the frame may be adjusted to compensate for any unevenness in ground over which it is desired to work or to adapt it for work in a side hill.

To the outer faces of the cross-pieces B at the top and bottom of the machine are secured the strips E, which constitute the picket-gage. These strips have portions extending at right angles to their length, as seen at E′, and these right-angled portions are provided with a plurality of holes e, through which may be removably passed the pins or nails E^2, as seen in Fig. 1, and by this means the machine is adapted to be used upon split pickets which taper, as shown in Fig. 1, wherein the picket F is indicated by dotted lines, the pins or nails E^2 being adjusted into the proper holes to compensate for the difference in width of the pickets at the top and bottom, as shown in Fig. 1, whereby the fence may be set straight, the pickets being placed against the pins or nails, as indicated in Fig. 1.

G are transverse pieces placed upon the sides of the uprights opposite the pieces B, and in sockets in the adjacent faces of these pieces B and G are mounted to revolve the sprocket-wheels H, around which passes a sprocket-chain I, as indicated in Fig. 2, the sprocket-chain being passed around the upper and lower sprocket-wheels and upon one side of the center one, as seen in said Fig. 2, to obtain the proper direction of rotation of the different sprocket-wheels and to secure a more positive hold and render the chain less

liable to slip. Motion is imparted to the center sprocket-wheel and consequently to the others in the following manner: The center sprocket is formed with a bevel or crown gear J, as seen in Figs. 1 and 3, with which meshes a pinion K, carried by a stub-shaft K′, suitably mounted in bearings on one of the uprights, and this shaft is provided with a suitable crank-handle L, as shown in Figs. 1, 2, and 3. The turning of this handle imparts motion to the gear K, and through the medium of the beveled gear J to the center sprocket-wheel, as will be readily understood.

M is a wedge provided at one end with a transverse piece M′, having the openings *m* located beyond the wider portion of the wedge, as seen in Figs. 1 and 4, and this piece M′ is adapted to fit into the diametrically opposite notches *h* in the hub of the sprocket-wheel H, as indicated in Fig. 1, and as shown more fully in Fig. 4, so that it must rotate with the sprocket-wheel, the bars B being provided with sockets, as seen in Fig. 1, to receive the end of the hub of the sprocket-wheels with the pieces M′ seated in the notches therein, all as clearly shown in Fig. 1. The wedge extends through and beyond the hub, as seen in Fig. 1.

With the parts constructed and arranged substantially as above set forth the operation will be apparent, and briefly stated is as follows: The machine being set in position, if split or tapered pickets are to be employed, the notches or pins E^2 of the picket guide or gage are placed in the proper holes, as seen in Fig. 1, and the longitudinal wires placed in position and passed through the openings *m* in the pieces M′ and upon opposite sides of the wedges, when rotation of the shaft K′ twists the wire about the pickets, the wedges M serving to separate the wires where they are crossed and serving also to separate old wires by threading the machine so as to untwist the wire behind as it is twisted in front. As the machine is pulled back the wedge will separate the old twists and cause them to pass through the twisting-eyes. The center sprocket-wheel may be adjusted up and down on the uprights, as may also the others if necessary, to vary the distance between the wires or twisting-eyes, or to vary the distance between the lower wire and the ground or bottom of the picket. In Fig. 2 the bars B and G are shown as connected together and held upon the uprights by bolts N which pass through from side to side and bind the bars and the twisting-eyes and the sprocket-wheels to the uprights without entering or passing through the latter, whereby the latter are not weakened. By simply loosening the nuts on the bolts the pieces may be moved up or down and securely fastened in their adjusted position by tightening the nuts.

Modifications in detail may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

What we claim as new is—

1. In a fence making machine, a sprocket wheel having a hollow hub provided with a wedge extending through said hub, substantially as described.

2. In a fence making machine, a twisting head comprising a sprocket wheel with a hollow hub, and a wedge extending lengthwise of and through the hub with openings for the wire upon opposite sides thereof, substantially as described.

3. The combination with a sprocket wheel having a hollow hub with notches at one end, of a wedge extending into the hub and having a portion held in said notches, substantially as described.

4. The combination with a sprocket wheel having a hollow hub with notches at one end, of a wedge extending into the hub and having a portion held in said notches and having an opening upon each side of the wedge, substantially as described.

5. The combination with the uprights and the transverse pieces, of a sprocket wheel held between said pieces with one end in a socket in one of them and having notches, and a wedge extending into the hub and having a piece provided with openings and seated in said notches, substantially as described.

6. In a fence making machine, a twisting head comprising a wheel with a hollow hub and a wedge mounted to rotate with said hub and extended through and beyond the same, substantially as shown and described.

7. A removable wedge for a twister head tapered to a point and having at its larger end a transverse piece with openings combined with a twister head, substantially as described.

8. The combination with the uprights and the twisting device carried thereby, of an inclined arm pivoted to one of said uprights and carrying a guide wheel, and a bar pivotally connected with said inclined arm and having a longitudinal slot and adjustably connected to said upright, substantially as described.

9. The fence making machine described, comprising the frame, the sprocket wheels, and twister heads with wedges, extending lengthwise of, through and beyond the hubs of said heads the sprocket chain and means for actuating the same, means for adjusting the inclination of the machine, and an adjustable picket gage, all substantially as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

BENJAMIN C. BRINEY.
SOLOMON C. GERON.

Witnesses:
W. H. SLUDER,
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