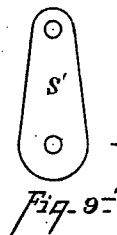
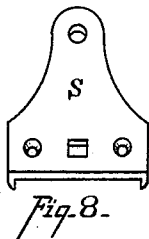
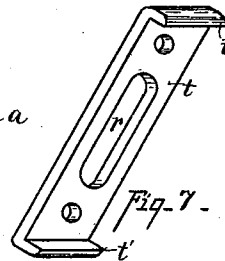
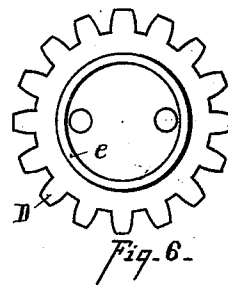
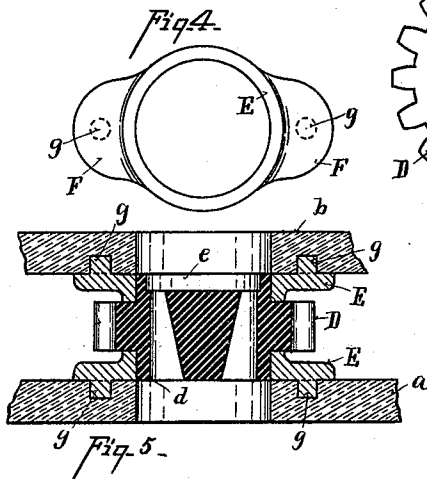
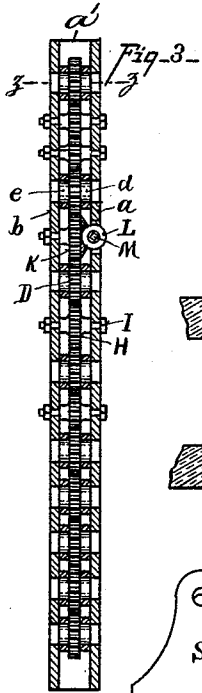
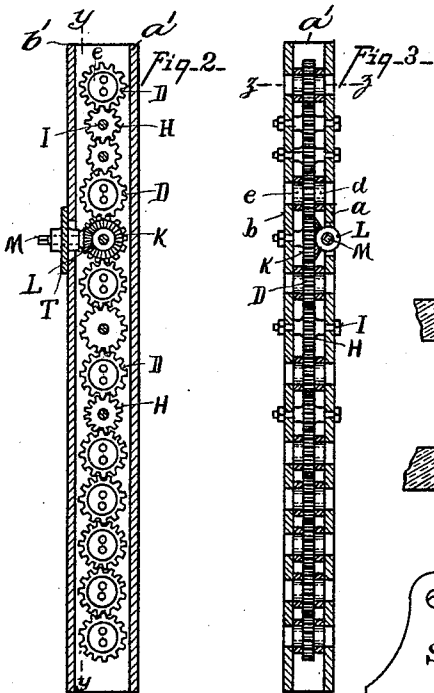
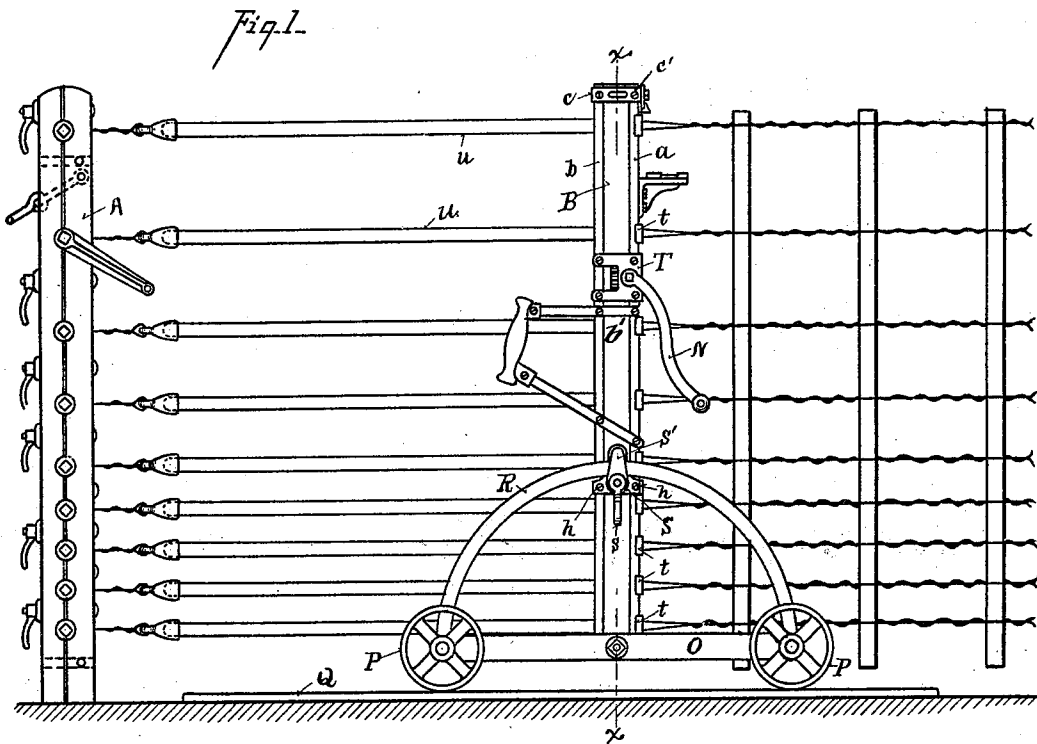


(No Model.)

W. C. SHOEMAKER.
FENCE MACHINE.

No. 522,125.

Patented June 26, 1894.



Attest—
C. M. Miles—
Oliver B. Kaiser.

Inventor—
H. C. Shoemaker
By Woods & Bond, atty.

UNITED STATES PATENT OFFICE.

WILLIAM C. SHOEMAKER, OF RICHMOND, INDIANA.

FENCE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 522,125, dated June 26, 1894.

Applicator filed March 15, 1894. Serial No. 503,759. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. SHOEMAKER, a citizen of the United States, residing at Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Fence-Machines, of which the following is a specification.

My invention relates to that class of wire fence machines which twist the wires to hold the slats in position.

One of the objects of my invention is to provide a machine adapted to twist the wires at different distances apart.

Another object of my invention is to make a light and effective twister.

The various features of my invention are fully set forth in the description of the accompanying drawings making a part of this specification, in which—

Figure 1 is a side elevation of my improved machine in position for use. Fig. 2 is a section on line $x-x$, Fig. 1. Fig. 3 is a transverse section on line $y-y$, Fig. 2. Fig. 4 is a plan view of one of the journals supporting the twisting wheels. Fig. 5 is an enlarged section on line $z-z$, Fig. 3. Fig. 6 is a plan view of one of the twister wheels. Fig. 7 is a detail of one of the wire guides. Figs. 8 and 9 are details of the segment clamp.

A represents a tension frame which holds the wires to be twisted in position.

B represents a twisting head.

The frame is composed of side boards or uprights a, b , which are secured to boards a' b' by means of the clamp plates c , fastened in position by through bolts c' .

It is desired to construct the twisting head of a series of twister wheels and also to arrange these wheels at different distances apart so as to construct fences adapted to turn different kinds of animals.

My construction enables me to readily employ any desired number of double strands in the fence and to make three strands any desired distance apart, which is accomplished in the following manner:

D represents one of the twisting wheels. It is provided on its periphery with spur teeth which act as transmitters for the transmitting wheel or the twister wheel, as occasion requires. In the preferred form of construction the front face of the twister is provided

with an annular hub e , and a similar hub d on the opposite face. These journals in bearings E which are provided with ears F .

g represents studs or pins upon one face of the collar journals which are driven into the uprights a, b , to hold the journals in position.

H represents intermediate transmitter wheels journaled upon the bolts I, which pass through the uprights a, b . The distance between the twisting disks D may be varied by taking out one of the intermediates or putting in more intermediates, and the bearings E for the twister wheels may be readily placed in position to accommodate such change. The lower five twister wheels are shown as operating without intermediate transmitters.

K represents the main driving wheel which is provided with a bevel gear meshing with the bevel gear L, which bevel gear is provided with a shaft M upon which is mounted crank N for driving the series of gears between the uprights. The twister head is pivoted to the truck frame O, which truck frame is supported upon the wheels P running on track Q in the ordinary manner.

R represents a segmental brace which is held between the guide irons S, S'; the under guide S is T-shaped and secured to the uprights by bolts h . The outer iron S' is provided with a stud journaling in the upper end of the T-iron S.

s represents a tail nut for clamping the lower end of iron S' with more or less force against the segmental brace R.

T represents a U-shaped clamp plate which not only serves to brace the uprights a, b , but serves for a journal for the shaft of the crank N. By means of this journal and crank the driving bevel gears, L, K, may be placed in any desired position of the series to suit the wants of the trade.

Various advantages are derived by the use of the collar journals applied to the hollow frame a, b . A very firm bearing is made for these twister wheels. The frame can be made light as well as effective. The bearing can be quickly attached in any desired position to suit the size and number of twist-ers, so that one size of frame can be used for all sizes of twist-ers. By making two hubs and bearings on each face of the twister wheels undue lateral strain of the wheels on their journals is

avoided. Again the light uprights *a, b, a', b'* can be employed to support and sustain the working mechanism. These uprights are secured against warping by means of bolts *I* and the brace or clamp plates *c, T*. On the face of the frame opposite each twister wheel are provided brace plates *t*. *r* represents slots through the same for holding the wires in position. These plates are provided with lugs *t'* which project over the edge of the frame piece *a*; the face of these plates serve as bumpers to force the pickets in position by a blow delivered by running the machine backward and forward. They serve therefore, the triple purpose of braces, bumpers and wire guides. The rear frame piece *b* is pierced with slots or holes through which the wires *u* pass to the twister wheels.

Having described my invention, what I claim is—

1. The combination of the hollow frame composed of the uprights *a, b, a', b'*, the collar bearings *E* having ears *F* provided with studs *g* detachably connected with the inner sides of said hollow frame, the twister wheels *D* having hubs *e, d* journaled in said collar bearings, transmitter wheels *H*, bevel driving gears *K, L*, crank-shaft *M*, and the *U*-shaped clamp plate *T* adapted to serve as a brace for

the hollow frame and as a bearing for the crank-shaft, substantially as described.

2. The combination of the hollow frame composed of the uprights *a, b, a', b'*, a series of twister wheels and intermediate transmitters journaled within said frame, and the plates *t* having end lugs *t'* and longitudinal slots *r* and secured to the upright *a*, and adapted to serve as braces for the hollow frame, as guides for the wires of the fence, and as bumpers for forcing the pickets in position, substantially as described.

3. The combination with the truck *O*, the hollow frame pivoted on the truck, and the segmental brace *R*, of the guide irons *S, S'*, the under guide *S* being *T*-shaped and bolted to the hollow frame, and the outer iron *S'* being provided with a stud journaling in the upper end of the other iron and having a tail-nut *s* by which its lower end is clamped against the segmental brace, substantially as described.

In testimony whereof I have hereunto set my hand.

WILLIAM C. SHOEMAKER.

Witnesses:

T. SIMMONS,

W. R. WOOD.