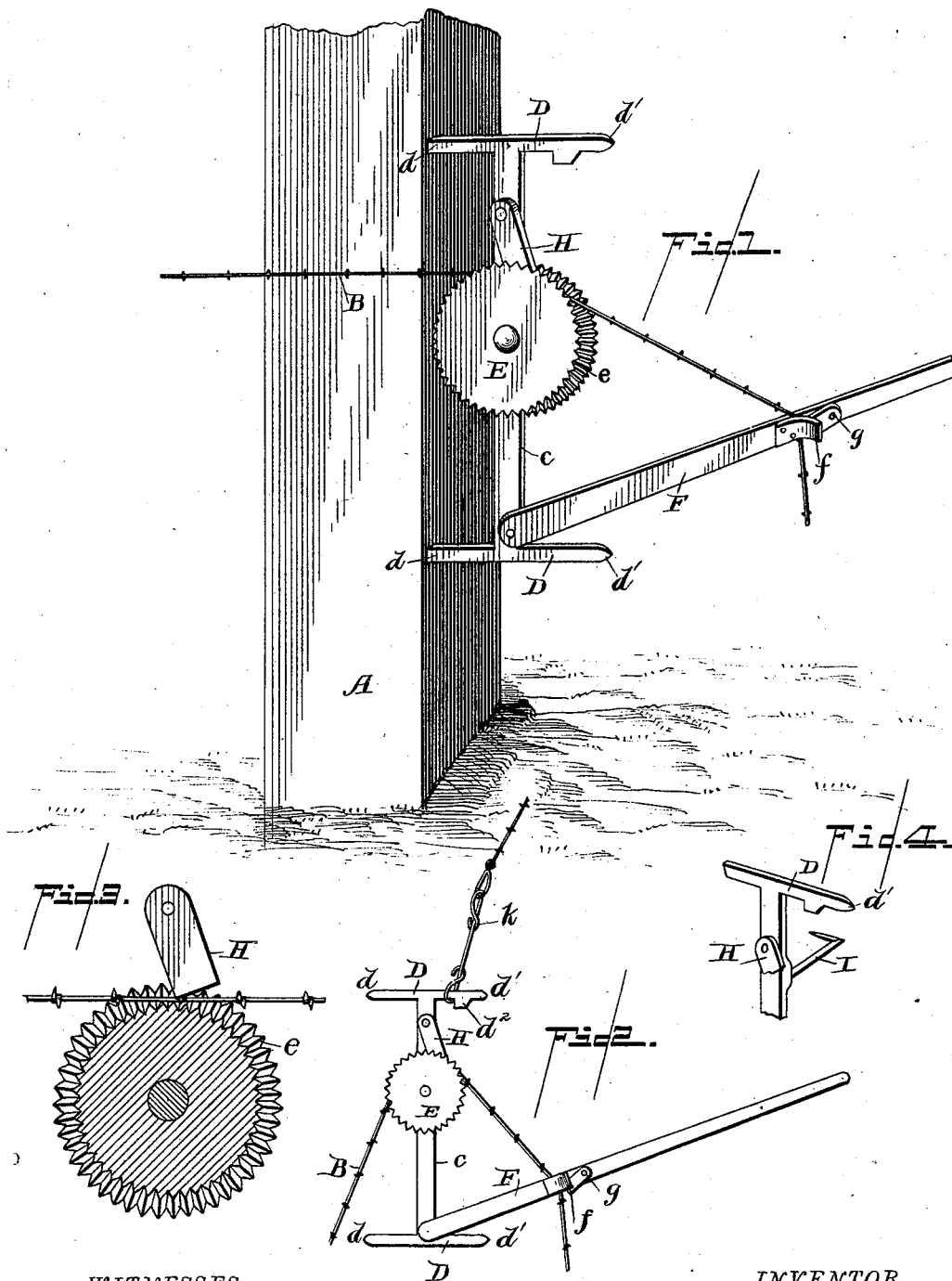


(No Model.)

E. A. CHASE.
WIRE TIGHTENER.

No. 385,998.

Patented July 10, 1888.



WITNESSES,

Edwin I. Yewell,

C. Severance.

INVENTOR.

Elmer A. Chase.

By *L. Deane,*
his Attorney.

UNITED STATES PATENT OFFICE.

ELMER A. CHASE, OF YANKTON, DAKOTA TERRITORY.

WIRE-TIGHTENER.

SPECIFICATION forming part of Letters Patent No. 385,998, dated July 10, 1888.

Application filed March 31, 1888. Serial No. 269,151. (No model.)

To all whom it may concern:

Be it known that I, ELMER A. CHASE, a citizen of the United States, residing at Yankton, in the county of Yankton and Territory of Dakota, have invented certain new and useful Improvements in Wire-Tighteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Figure 1 is a perspective view of the device as in operation; Fig. 2, a detail showing how the wires may be spliced; Fig. 3, a detail showing wheel and pawl holding the tightened wire; Fig. 4, a detail showing the operation of the bracing-iron.

This device belongs to that class of inventions known as "fence-wire tighteners;" and the novelty consists in the detail of the construction of the several parts, and in their combination together, all as will now be fully set out and explained, reference being had to the accompanying drawings.

In the drawings, A denotes a fence-post, and B any fence-wire, barbed, as now shown, or not barbed. The tightener-frame consists of the vertical piece C, to which, at the top and bottom, are secured the horizontal drive-pieces or supports D. These and the piece C are preferably made of iron, and their ends *d* are so sharp-pointed that they can be easily driven into the post. At a suitable place on the piece C and between the support-pieces D is pivoted the double-beveled toothed wheel E. This peculiar structure of the edge of the wheel is produced by inclining the teeth *e* from the side to the center, where they meet and afford a channel for the fence-wire to be placed in. When the fence-wire is to be tightened, it is placed in the apex of the double bevel of the wheel E, and thence passed into the holding notch or arm *f* on the lever F, where, by the pawl *g*, hinged to the lever and operating in connection with the holding-notch, the wire can be tightly secured so as not to slip when being drawn taut. The lever at its inner end is pivoted to the upright C. When the fence-wire has been strained as far as practicable by

one movement of the lever, the pawl H, pivoted on the vertical piece C, is caused to engage with the teeth on the double bevel of the wheel E, and thus holds the wire till the lever has been brought back for another pull, and when the wire has been properly tightened it can be fastened on the post A by staples, or in any other way, so as to be secure, and the tightener removed. To hold the frame firm there is a brace or stay, I, attached to the side of the vertical piece C opposite to the wheel, and adapted by its bent and pointed end to be fixed in the post.

If it is desired to attach the fastener in a reverse position to the fence-post, the opposite ends, *d'*, of the horizontal drive-pieces, which are also sharpened or pointed, will answer for that purpose. The lever can be swung over to a position opposite to that now shown, and the stay I simply reversed and the pawl on the wheel adjusted to correspond.

If it is desired to use this device to splice broken wire—that is, to unite the ends of a fence-wire—a short piece of any kind of wire, *k*, is attached to one end of the broken fence-wire, which is looped for the occasion, and the other end of the wire *k* is placed over one end of one of the horizontal pieces and engaged under its shoulder *d''*. Then the other end of the fence-wire is tightened by means of the lever and the wheel is stopped and the ends of the fence-wire can be readily joined together in the usual manner.

Having now described my invention, I claim as new—

1. A wire-tightener consisting of a toothed wheel having in its edge a double bevel formed by inclining the teeth from side to center, a frame to which said wheel is pivoted, a pawl to hold the wire in and upon said wheel, and a lever for drawing the wire taut, substantially as described.

2. In a wire-tightener, as described, the combination of the frame, the toothed wheel E, and the pawl H with the lever F, having notch *f* and pawl *g*, and pivoted to the frame of the tightener.

3. In a wire-tightener, the combination of the following elements, viz: a frame adapted

to be secured, either side up, to the fence-
post, provided with a stay or brace to hold it
firm, and having a double-beveled toothed
wheel pivoted to it, a pawl to engage upon
5 said wheel, and a lever provided with means,
as described, for holding it fast to the wire in
process of tightening the same, substantially
as described.

In testimony whereof I affix my signature in
presence of two witnesses.

ELMER A. CHASE.

Witnesses:

ROBERT J. GAMBLE,
HUGH S. GAMBLE.