(No Model.)

C. M. JAMESON.

STEEL FENCE.

No. 550,373. Patented Nov. 26, 1895.

FIG. 1.

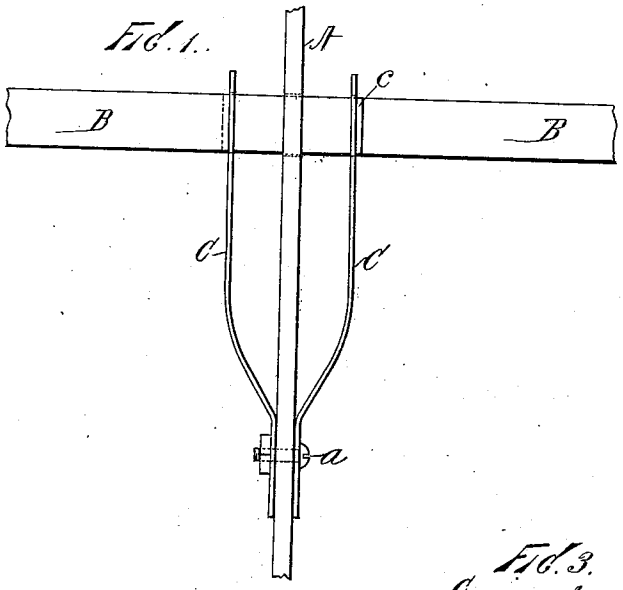


FIG. 2.

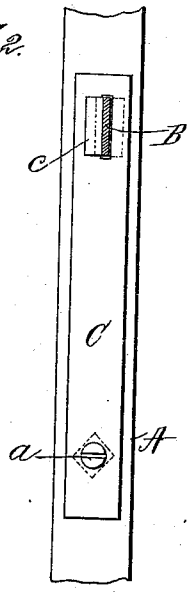


FIG. 3.

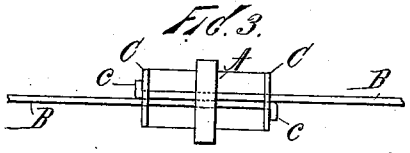


FIG. 4.

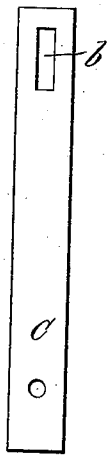


FIG. 5.

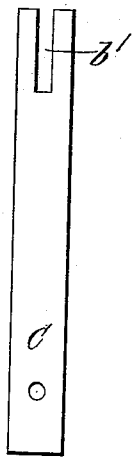


FIG. 7.

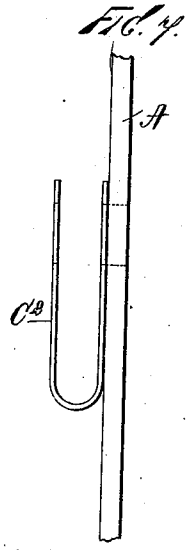
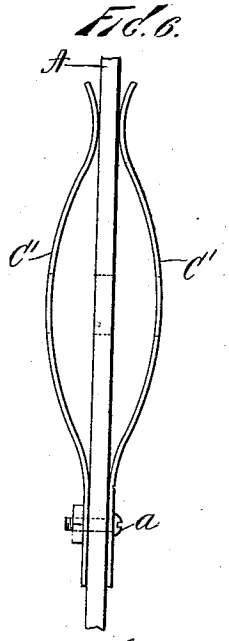


FIG. 6.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES M. JAMESON, OF NEW YORK, N. Y.

STEEL FENCE.

SPECIFICATION forming part of Letters Patent No. 550,373, dated November 26, 1895.

Application filed March 21, 1895. Serial No. 542,582. (No model.)

To all whom it may concern:

Be it known that I, CHARLES M. JAMESON, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented certain new and useful Improvements in Steel Fences, of which the following is a specification.

My invention relates to steel fences, and especially to such as are composed of vertical posts mortised to receive the rails or horizontal bars and connected with the bars forming fence-panels.

The object of my invention is to provide a simple and efficient means by which the horizontal strains on the fence are automatically compensated and the various parts maintained in correct relation with each other and the rails kept taut, whether the disturbance be due to natural expansion and contraction or to extraneous forces. To accomplish this and to secure certain advantages in respect to construction and operation of the improved appliance and facilities in erecting the fence, my improvements involve certain new and useful features of invention, as will be herein first fully described, and then pointed out in the claims.

In the drawings, Figure 1 is an edge view of a fragment of one of the flat metal posts of a fence, showing springs applied upon the sides thereof, and in side elevation two rails overlapping each other through the post, both connected with the springs. Fig. 2 is a side view of the post shown in Fig. 1 upon a plane cutting through one of the rails, and Fig. 3 is a top view showing the edges of both rails and the manner of connecting each with its respective spring. Figs. 4 and 5 are side views of single springs, such as represented in previous figures, but indicating different manners of providing for the admission of the fence-rail to be held. Fig. 6 is an edge view of a fragment of a post having double springs or springs having double bearings upon the post, as is also contemplated by my improvements; and Fig. 7 is an edge view showing a bent spring applicable in connection with the posts and rails.

In all the figures like letters of reference, wherever they occur, indicate corresponding parts.

A is one of the vertical fence-posts, mortised at intervals to permit the passage of the horizontal rails B B. The post A is of any desired length and receives two, three, or more sets of rails, according to the height of the fence to be built. In a fence of short length but one of the posts need be equipped with the compensating appliance, although as many such posts may be employed within the length of the fence as circumstances may suggest, one for about every three hundred feet being ordinarily sufficient.

Heat and cold vary the length of the horizontal rails to such an extent as to slacken the fence or contract them sufficiently to throw it out of line, and in use the fence is subjected to various strains, calculated to bend the horizontal rails. To counteract these effects and to automatically restore the rails to their strained or tightened condition after disturbance, I employ strong springs, such as represented at C C′ C^2, and connect these with the rails B in such manner that they will yield when the rails are bent or shortened, and after the disturbing strain is removed automatically draw the rails back to their proper position.

The springs C and C′ are mounted upon the post A, as by a bolt *a*, and they are mortised, as at *b* or *b*′, to admit the rail or rails B. The ends of the rails next to the springs are bent as at *c*, the bent portion bearing upon the outside of the spring, and when in place, if the rail be contracted in length, it will draw the spring toward the post, and if extended the spring will take up the slack. The rails extending to the right of the post are connected with the spring on the left and those to the left with the spring on the right, the unbent ends of the rails being passed through the mortises. The mortises through the springs may be cut as shown at *b*, Fig. 4—that is, closed all around—or, if preferred, they may be fashioned as in Fig. 5 at *b*′, the opening at top permitting the rail to be canted to facilitate location or removal or permitting the spring to be detached and replaced without disturbing any of the rails. With this form the springs may be applied on the posts after the rails have been located in place. Under ordinary circumstances the short-length spring will suffice; but its free end may be extended if desired, as at C′ C′,

Fig. 6, and made to bear upon the post. This will make a somewhat stronger or stiffer spring, its action on the rails, however, being the same as in the shorter form having a single bearing on the post.

In Fig. 7 the spring C^3 is shown as bent in V or U shape. This form gives a stronger spring for the same length.

The appliance is simple and cheap, easy of application, and well calculated to answer all the purposes or objects of the invention previously set forth.

Having now fully described my invention, what I claim as new herein, and desire to secure by Letters Patent, is—

1. In a fence of the character herein set forth, the combination with the mortised post and the flat metal rail located therein, and provided with a bent portion *c*, of a mortised spring bolted upon the side of the post and connected with the end of the rail which projects through it, substantially as shown and for the purposes set forth.

2. In a fence of the character herein set forth, the combination of the mortised post, flat metal rails lapping each other in the mortise, and provided each with a bent portion *c*, mortised springs bolted on each side of the post and receiving the lapping rails, the portions *c* bearing upon the springs, substantially as shown and for the purposes explained.

Signed at New York, in the county and State of New York, this 18th day of March, A. D. 1895.

CHARLES M. JAMESON.

Witnesses:
W. J. MORGAN,
WORTH OSGOOD.