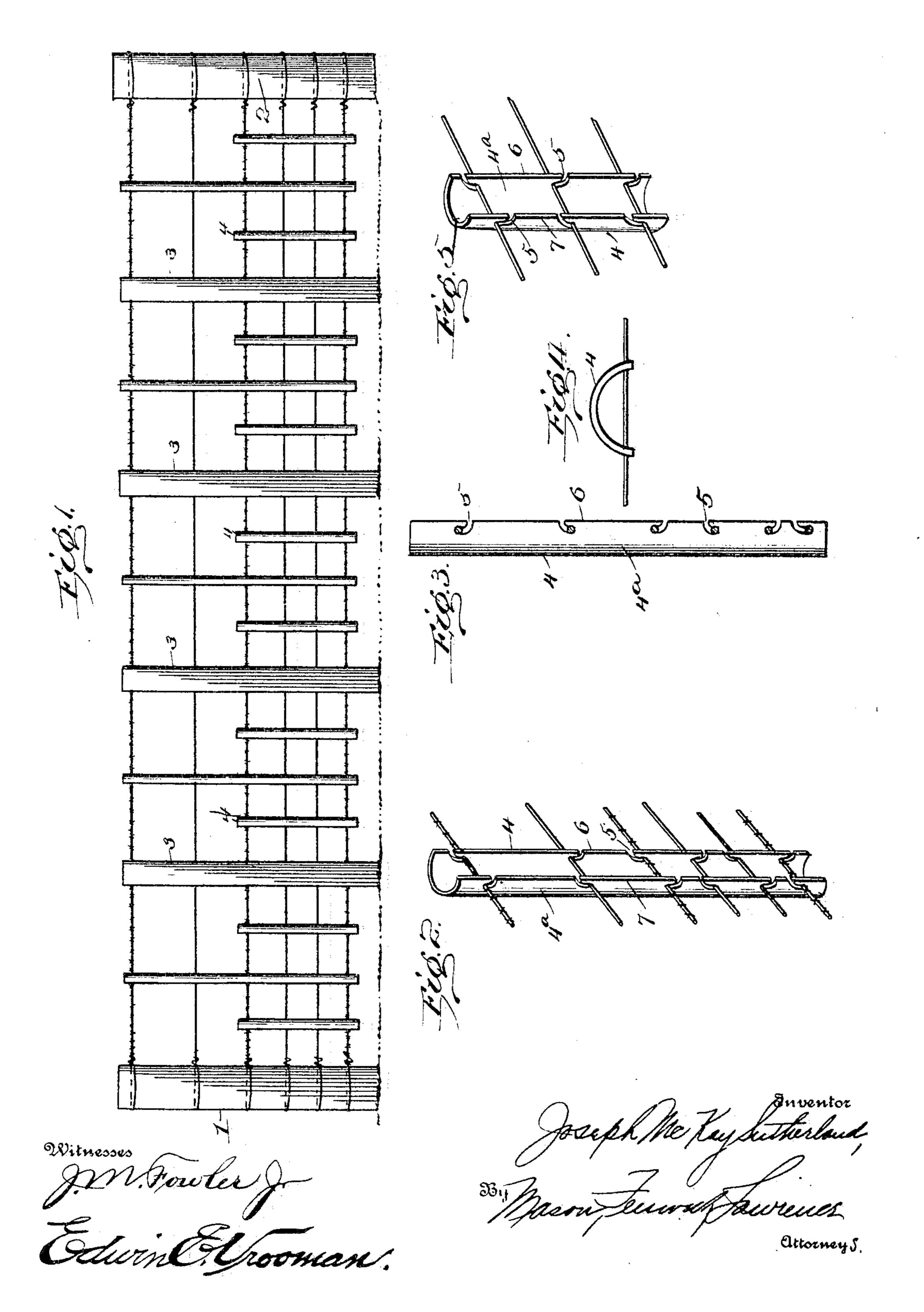
## J. McK. SUTHERLAND. FENCE.

APPLICATION FILED APR. 9, 1904.



## United States Patent Office.

JOSEPH McKAY SUTHERLAND, OF WASHINGTON, DISTRICT OF COLUMBIA.

## FENCE.

SPECIFICATION forming part of Letters Patent No. 782,083, dated February 7, 1905.

Application filed April 9, 1904. Serial No. 202,448.

To all whom it may concern:

Be it known that I, Joseph McKay Sutherland, a subject of the King of Great Britain, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Fences; 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.

My invention relates to improvements in fences, and particularly to that style of fence employing wooden posts and wire strands and droppers or stays for receiving and holding the wires at the proper distances apart, the whole forming a strong, light, and durable fence, which can be readily constructed with comparatively few posts and when desired conveniently removed.

The object of the invention is to construct a dropper or stay, with means for positively retaining the same in an assembled locked position, with a plurality of approximately parallel strands of wire or the like, thereby preventing the said assembled strands from being spread apart or moved together, and to also insure of the strands being retained in their correct mounted position between the posts of the fence to which the strands are secured.

Another object of the invention is to provide a dropper or stay which will retain all of the wires employed in the construction of the fence in a positive spaced position and to provide auxiliary droppers or stays of less length, preferably secured to the lower strands or wires of the fence for insuring of a more durable and efficient construction.

With these and other objects in view the invention consists in the novel constructions, combinations, and arrangements of parts, as will be hereinafter fully described, illustrated in the accompanying drawings, and more particularly pointed out in the claim hereto appended.

In the drawings, Figure 1 is a side view of a portion of a fence constructed in accordance with the present invention. Fig. 2 is a per-

spective view of a stay or dropper constructed in accordance with the present invention. 5 Fig. 3 is a side elevation of a stay or dropper shown in Fig. 2. Fig. 4 is a top plan view of a stay or dropper. Fig. 5 is a perspective view of an embodiment of my invention.

In the construction of a fence employing 5 my improved stay or dropper 4 each panel thereof is provided with straining-posts 1 and 2, which are preferably constructed of wood; but it will be obvious that any other material may be employed in constructing the 6 same. Each panel of the fence is provided with a plurality of intermediate or auxiliary posts 3, which are positioned in alinement between the straining-posts 1 and 2. The intermediate posts 3 are preferably constructed 6 of wood; but as in the case of the strainingposts 1 and 2 they may be constructed of any other suitable material. The straining-posts and also the intermediate posts are bored longitudinally for the purpose of permitting the 7 strands of wires to be passed therethrough instead of employing separate assembling means for retaining the strands of wire with said posts. By this construction it will be obvious that when the strands are passed 7 through the apertured portion of the posts said strands will be retained in an assembled position therewith without the employment of staples or any similar means, thereby obviating the necessity of employing driving means 8 for the staples or the employing of means for the removal of staples or any fastening means. for retaining the strands in an assembled position with the apertured posts. As shown in the drawings, the straining-posts are con- 8, siderably larger than the intermediate or auxiliary posts in diameter as well as length.

In a fence constructed in accordance with the present invention there is preferably employed a plurality of barbed strands, as well 99 as smooth strands, of wire. The construction of the stay is such as to make it immaterial whether the parallel strands of wire are provided with barbs or not, as it will be apparent from the description of the stay hereinafter set forth that the same will be positively 782,083

secured in a locked position upon the strands without kinking or otherwise affecting the normal condition of the strands. By the employment of my improved stay the strands of 5 wire are permitted to lie in an approximately parallel position throughout the entire length, as the locking and spacing construction of the stay is such as to obviate the necessity of bending the strands at an angle to their norco mal horizontal position when in a locked assembled position with the stay.

In constructing my improved stay or dropper any suitable material may be employed; but I preferably use galvanized iron or simi-15 lar metallic material. The body portion 4<sup>a</sup> of the stays are preferably approximately semi-

cylindrical in shape.

Slots 5 are formed upon the edges 6 and 7 of the stay or dropper 4. The segmental slots 20 or recesses upon each edge extend in an opposite direction relative to the next adjacent slot, as it will be apparent upon referring to the drawings that the upper slot formed in the edge 6 extends downwardly and the slot 25 formed upon the edge 6 beneath the upper slot extends upwardly in the body portion of the stay. Upon each edge of the stay the slots extend alternately upward and downward, the slot formed near the top of the stay 30 upon the edge 7 extending upwardly and the opposite slot on the edge 6 formed downward thereon. It will be seen by referring to Figs. 2 and 5 that the slots formed upon the edge 7 near each end of the stay extend toward the 35 end thereof, while the slots or recesses formed upon the edge 6 near the ends thereof extend inwardly or toward each other.

In Fig. 5 I have shown the construction of a comparatively short stay or dropper illus-40 trating the principle of the invention, although there are not employed as many slots in the

construction of the stay as in Fig. 2.

It will be obvious that the stay or dropper will be positively locked on the strands of 45 wire if there were only employed an upper and lower strand without the central strand, as shown in Fig. 5. In this figure the upper and lower strands of wire are not provided with barbs, as it will be apparent that the 50 locking feature of the stay or dropper 4 upon the wires will be practically the same whether or not the strands are provided with barbs. Furthermore, it will be obvious that the strands at all times are retained in a straight 55 position, thereby greatly increasing the durability and the efficiency of a fence constructed in accordance with the present invention, particularly wherein my improved stay is employed.

In a device constructed in accordance with my invention a positive locked position is obtained by the stay or dropper when placed in an assembled position with the parallel strands, as it will be obvious that when the

stay is placed upon the top strand by means 65 of turning the stay to a position at an angle to the upper wire, inserting said wire into one of the end slots formed in the upper end of the stay, and subsequently turning the stay to such position whereby the strand can be in- 70 serted into the opposite parallel slot, and thence inserting the lowest strand into one of the slots formed in one of the edges near the lowest end of the stay, and thence causing the wire to be moved into the opposite end slot 75 of the stay, such locked position of the stay is obtained, thereby preventing the movement of the wires relative to their assembled parallel position.

While I have shown in Fig. 1 of the draw- 80 ings stays or droppers of different lengths, the construction of said stays or droppers is the same in each instance. Between each two of the posts I preferably employ a comparatively long stay or dropper and a second stay 85 or dropper of less length than and assembled with the comparatively long stay upon the lower strands. The space between two contiguous strands varies, according to their assembled position, with the remaining strands 90 of the fence, as it will be obvious that the width between the two lowest parallel strands is less than the next succeeding two strands and that the distance between the parallel strands increases toward the top of the fence. 95

By the construction of a fence disclosed in the present application employing my improved stays or droppers it will only be necessary to employ straining-posts at a considerable distance apart and any number of in- 100 termediate posts, the number of intermediate posts being controlled entirely by the constructor, as the principle of construction will be the same when employing any given number of intermediate posts. When a panel of 105 the fence is completed, (the posts being in an alined position, the wires mounted thereon, and the stays or droppers in position upon the wires,) it will at all times be retained in a vertical plane, except when an object comes in 110 contact with the fence between two posts. The engagement of said object with the fence will not affect the durability or construction thereof, as the fence between the two posts will give sufficiently, according to the pres-115 sure brought to bear thereon, and when such pressure has been removed from the fence the same will assume its normal vertical position, although, perhaps, it has been moved to a radical angle to its vertical plane, for the rea- 120 son that the fence has a certain resilient action, owing to its construction.

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

A device of the character described, comprising a body portion having a plurality of approximately parallel edges, each edge hav-

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ing a plurality of segmental slots successively extending in opposite directions, the lower portion of the downwardly-extending slots on one edge of the stay being in substantially the same horizontal plan as the upper portion of the oppositely-arranged, upwardly-extending, coacting slots on the other edge of the stay.

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

JOSEPH MCKAY SUTHERLAND.

Witnesses:

EDWARD T. FENWICK, JOHN L. FLETCHER.