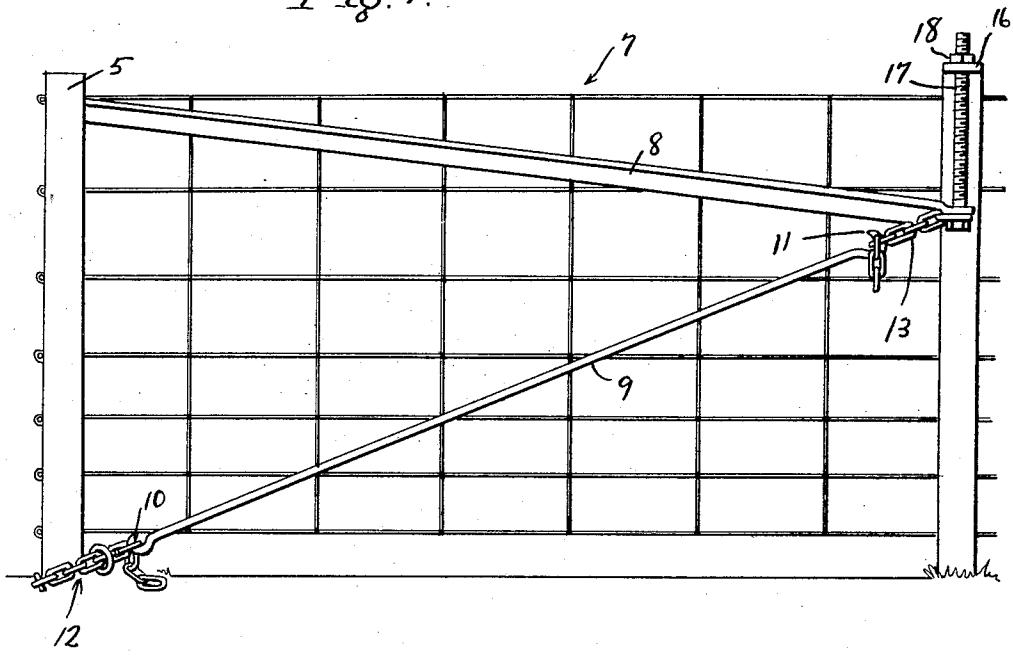
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ADJUSTABLE POST BRACE

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Fig. 1.



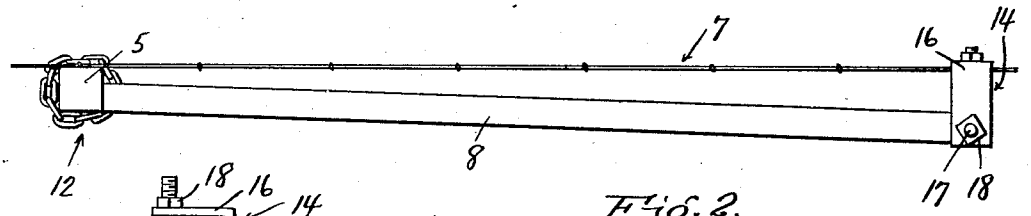


Fig. 2.

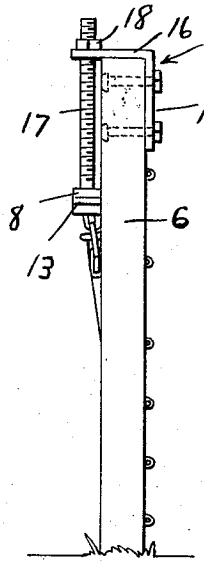


Fig. 3.

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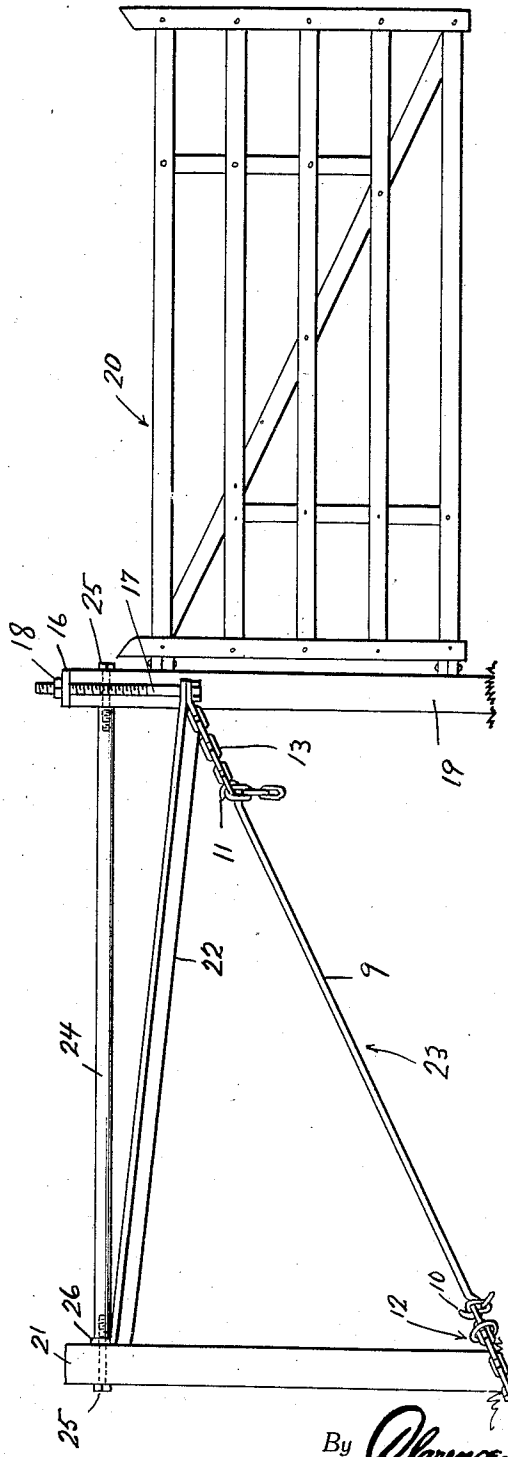


Fig. 4.

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UNITED STATES PATENT OFFICE

GEORGE KING THOMPSON, OF RANDOLPH, ILLINOIS

ADJUSTABLE POST BRACE

Continuation of application Serial No. 366,651, filed May 28, 1929. This application filed November 17, 1930. Serial No. 496,365.

This invention has reference to an improved brace usable in connection with fence posts, gate posts and the like employed in the construction of farm fences and similar enclosures.

The fence problem is one of the most trying problems on the farm. Wires have become almost universal as a means of construction of fences, but to be effective in confining live stock, the wire must be kept tight. As a rule woven wire is made with a slight crimp every few inches apart to permit contraction and expansion without breaking the wire. During cold weather the wires contract and after this happens the wire becomes permanently lengthened to some extent and with very little expansion the fence is rendered loose enough to provide an exceptionally unreliable and inefficient bar to live stock.

To overcome these objectionable defects, I have evolved and produced a novel and dependable post brace structure which permits the fence wires to be maintained at the proper degree of tension irrespective of weather conditions.

Briefly and structurally visualized, the invention relies for novelty upon an arrangement embodying a primary post, a secondary post which is disposed in longitudinally spaced relation from the primary post. A substantially triangular brace structure is provided for co-operation with the post and this includes a somewhat horizontal stay bearing at one end against the primary post at a point near the top of the latter post.

A guy rod or equivalent element is fastened at its corresponding end to the lower portion of this same primary post. This allows the vertex of the triangular brace to be located in close proximity to the upper end portion of the secondary post where means is provided for adjustably connecting and suspending the vertex from said upper end to accomplish an entirely new theory and principle in the distribution of stress.

Some of the objects of the invention are: First, to attain as near as possible absolute rigidity of the anchor post against the tension of the fence wires; secondly, to provide a simple means of taking up undue slack resulting from expansion and other causes; third, to secure greater economy by permitting the use of lighter and shorter anchor posts, and by obviating the necessity of setting them excessively deep or embedding them in concrete bases; and, fourth, to provide a brace that may be quickly placed in position or removed and which may be used over and over in a satisfactory manner.

Other features and advantages will become more readily apparent from the following description and drawings:

In the drawings:

Figure 1 is an elevational view of the brace applied to the corner portion of a conventional wire fence.

Figure 2 is a top plan view of Figure 1.

Figure 3 is an end view observing the structure seen in Figure 1 in a direction from right to left.

Figure 4 is a view showing the brace associated with a gate post and a supplemental anchor post.

Attention is invited first more particularly to Figures 1 to 3 inclusive. Here the reference character 5 designates the primary post, and the reference character 6 designates the secondary post, being a line post of the fence, which post receives the entire strain of bracing in a downward direction.

Interposed between these and connected therewith is the customary fence wire indicated at 7. The reference character 7 designates a rigid approximately horizontal stay. This comprises a bar of appropriate configuration bearing at one end against the upper portion of the post 5 and having its opposite end adjacent to, but not in contact with the post 6. The left hand end of this stay rests against the post 5 and if desired the post may be notched to receive this end to guard against lateral external slippage. Disposed in convergent relation with respect to the stay 8, is a diagonal guy of adjustable length. This may be of any appropriate material such as wood or metal, with means at one end for attaching to the primary post and at the opposite end for connecting it with the extended end of the stay.

As shown here this comprises a rod 9, having hooks, 10 and 11 at its opposite ends. A chain 12 is placed about the lower end of the primary post and the links of the chain are adjustable connected with the adjacent hook 10. A similar chain 13, is provided at the upper end and its links are adjustably connected; thus the parts 8 and 9 together with the post 5, form a triangular structure. In other words, the post 5 constituted a portion of the triangle for securing the proper transmission of the stress and strain, and to equalize and make uniform the bracing action.

The vertex or apex portion of this triangle is flexibly suspended from the top of the secondary post 6; as seen, for instance, in Figure 3, I provide an L shaped bracket 14, whose vertical leg 15 is clamped (in case of wooden posts) to the upper end of the post 6, and whose horizontal leg 16 extends over the top and beyond the post.

This extending portion is provided with an aperture through which the upper end of a vertically adjustable bolt 17, passes, and the retaining and adjusting nut 18 rests upon this bracket.

This bolt is threaded for the major portion of its length to attain a measure of adjustment almost equal to the length of the bolt.

The stay 8 and chain 13 have their converging ends arranged to surround the headed end of the bolt which connects these portions together. Thus, this vertex of the triangle is liftable in a vertical direction to tighten the wire or to slack it, as conditions and weather may require.

It is obvious that the post 5 can lean toward the post 6 only by forcing downward the vertex of the triangle, and that if the vertex of the triangle is held immovable by the bolt depending from the attaching bracket, it provides the desired immovability of the post 5 toward the post 6.

The vertex of the triangle, under the adjusting action of the bolt and nut, may be lifted vertically for moving the primary post 5 in the opposite direction away from the post 6, to render the fence wire taut.

When placed in position for use, the stay inclines downward from its point of contact with the primary post 5 to the extent of takeup in the adjusting bolt, so that when the full takeup has been applied, the stay is brought to a horizontal position. After this has been done, should greater tension of the wires be desired, the guy may be shortened by taking up on the chain 13 so as to bring the stay to its original inclined position, after which the take up on the bolt may be applied again. This operation may be repeated until the full amount of adjustment furnished by the chain has been exhausted.

Attention is now invited to Figure 4 wherein it will be observed that the invention is applied as a brace to a gate post. The gate post is designated by the reference character 19 and the gate by the reference character 20. The brace comprises a triangle structure including a suitably embedded anchor post 21, an approximately horizontal stay bar 22 and an adjustable connection generally designated at 23. The parts 22 and 23 are in converging relation. A horizontal brace bar or rod is interposed between and bolted at its opposite ends to the posts 19 and 21, respectively, as at points 25. It will be observed that the left hand end of the stay 22 is directed upwardly as at 26 and interposed between the brace rod 24 and the post. Thus secure anchorage of the stay 22 to the anchor post 21 is obtained. The adjustable connection 23 is the same as described in the first form of the invention. Likewise the adjusting means is the same and consequently the same reference characters are employed to designate these parts. In other words, the chain 12 surrounds the post 21 at the bottom and the hooks 10 on the guy rod 9 are adjustably connected therewith. Then too, the adjusting and bracket means is the same in this figure as represented in Figure 3. The only distinction is that there is an additional guy rod 24 and the structure used to brace a gate post instead of a fence post. The method of distribution of the stresses is the same as that already described, and repetition is unnecessary.

It is thought that by considering the description in connection with the drawings a clear understanding of the construction, operation and features and arrangement will be quite clear. Therefore, a more lengthy description is regarded unnecessary.

Minor changes in shape, size, and rearrangement of details coming within the field of invention claimed may be resorted to in actual practice if desired.

This application is a continuation of allowed application, Serial No. 366,651, filed by me under date of May 28, 1929.

Having thus described the invention, what I claim as new is:

1. In a structure of the class described, in combination, a primary post, a secondary post disposed in longitudinally spaced relation from said first named post, a substantially triangular brace structure cooperable with said posts, and including a stay bearing at one end against the primary post at the upper end portion of the latter, and a guy rod fastened at the corresponding end to the lower end portion of said primary post, the vertex of said triangle being located in close proximity to the upper end portion of the secondary post and means adjustably connecting and suspending said vertex from the upper end of said secondary post.

2. In a structure of the class described, in combination, a vertically extending relatively

stationary post, a second vertically extending stationary post longitudinally spaced therefrom, a substantially horizontal stay bearing at one end against the first named post, an adjustable connection between the remaining end of said stay and the second named post, togther with a downwardly inclined take-up device associated at its upper end with the adjacent end of the stay and said adjusting means, and adjustably anchored at its bottom to said first named post.

3. In a structure of the class described, a pair of longitudinally spaced vertically extending posts, a bracing stay bearing at one end against the upper end portion of one post, a bracket carried by the upper end portion of the remaining post, and adjusting bolt and nut connection between said bracket and the adjacent end of said stay, a chain connected with said bolt, a second chain embracing the lower end portion of the first named post, and a guy rod having hooks at its opposite ends adjustably connected to the links of said chains.

4. In a structure of the class described, in combination, a pair of spaced longitudinally vertically extending posts, a horizontal guy rod interposed between and connected with the upper end portion of said posts, a bracket attached to the upper end portion of one post, a depending adjusting bolt carried by said bracket, a diagonal stay member connected at its lower end of said bolt and having its opposite end connected to the adjacent and complemental post, a chain embracing the lower end portion of the last named post, a second chain connected to said bolt, and a guy rod having hooks at its opposite ends adjustably connected with the links of said chains.

5. In a structure of the class described, in combination with the end or corner post of a wire fence, an approximately horizontal stay having one end bearing against the upper end of the said post, a diagonal guy attached to the lower end of the said post, said stay and guy convergent at their ends opposite from said post, contiguous to an adjacent line post of said fence and connected together and suspended at their point of convergence, by a take-up device depending from a bracket attached to the upper end of the said line post.

In testimony whereof I affix my signature.

GEORGE KING THOMPSON.