E. E. THAYER.

KITE.

APPLICATION FILED JUNE 5, 1911.

1,021,278.

Patented Mar. 26, 1912.

2 SHEETS—SHEET 1.

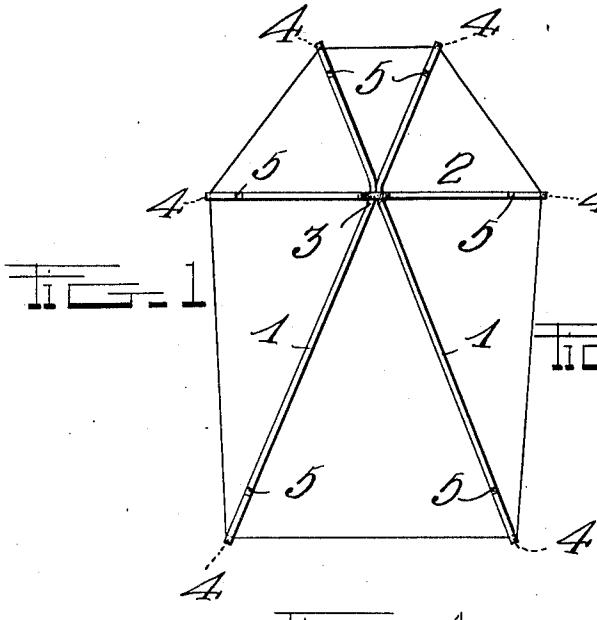

FIG. 1

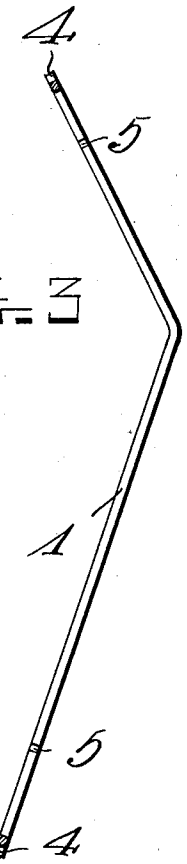

FIG. 3

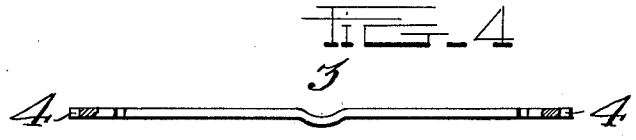

FIG. 4

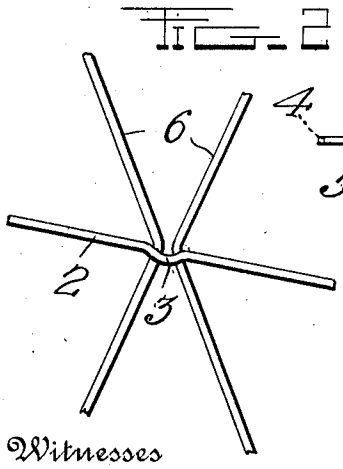

FIG. 2

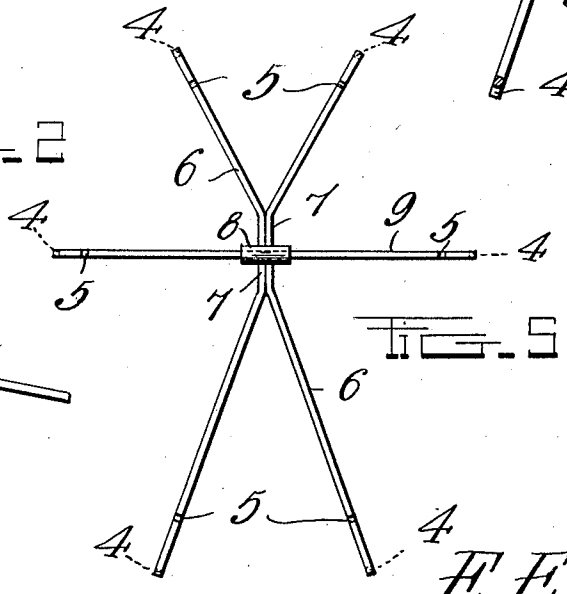

FIG. 5

Witnesses

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2 SHEETS—SHEET 2.

FIG. 6

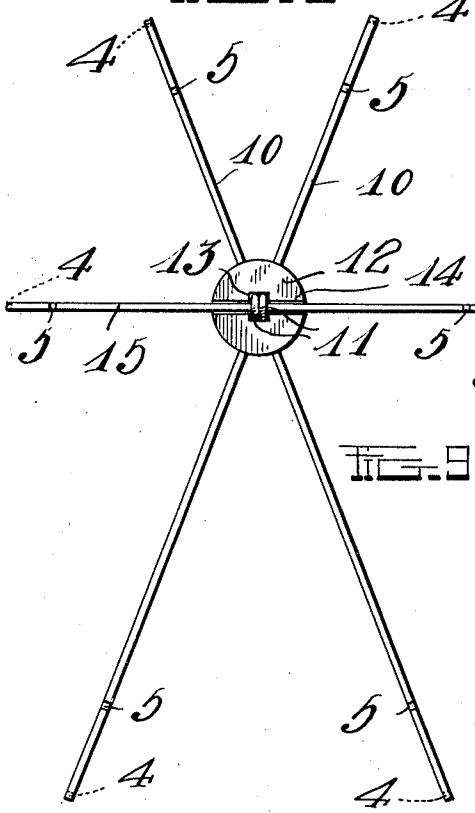


FIG. 7

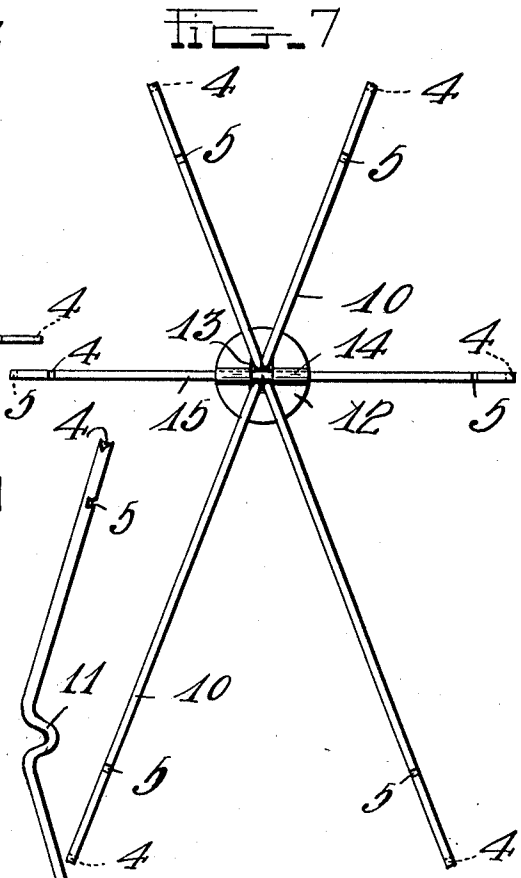


FIG. 9

FIG. 8

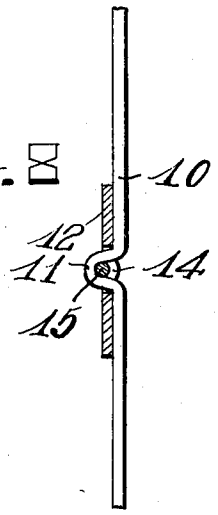
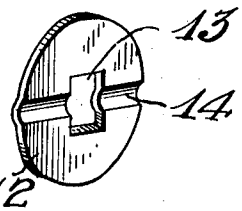


FIG. 10



Witnesses

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UNITED STATES PATENT OFFICE.

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KITE.

1,021,278. Specification of Letters Patent. Patented Mar. 26, 1912.

Application filed June 5, 1911. Serial No. 631,259.

To all whom it may concern:

Be it known that I, EVERETT E. THAYER, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in Kites; and I do 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.

This invention relates to improvements in kites.

One object of the invention is to improve the construction of the kite frame shown in United States Patent No. 523,490 granted to me July 24, 1894 wherein a simpler, stronger and more durable frame is provided.

Another object is to construct a kite frame in such manner that the parts thereof may be readily assembled and fastened together in position for use.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings: Figure 1 is a plan view of one form of my improved kite frame; Fig. 2 is a perspective view of the inner portions of the frame members showing the same separated; Fig. 3 is a detail view of one of the longitudinal members of the frame; Fig. 4 is a similar view of the transverse member of the frame; Fig. 5 is a plan view of a modified form of the frame; Fig. 6 is a plan view of another modified form of the frame; Fig. 7 is a similar view of the reverse side of the central portion of the frame shown in Fig. 6; Fig. 8 is a central vertical cross sectional view of the same; Fig. 9 is a detail view of one of the longitudinal bars of the frame; Fig. 10 is a detail view of the fastening disk for the bars or members of the frame.

Referring more particularly to Figs. 1 to 4 of the drawings, 1 denotes the longitudinal bars or members of the frame, said bars being bent at an angle near their upper ends whereby when said bars are assembled the upper and lower ends thereof will diverge at the proper angle for forming the top and bottom ends of the kite. The bars 1 when assembled have their bent portions soldered together or otherwise rigidly secured. To the bars 1 at their point of connection is soldered or otherwise rigidly secured the transverse bar 2 of the frame, said bar having formed therein midway between its ends a lateral bend which forms a notch 3, said notch being adapted to engage or fit around the joined or connected portions of the longitudinal bars 1 and to be soldered or otherwise secured to said bars as hereinbefore described. The bars 1 and 2 have formed in their outer ends cord receiving notches 4 and at suitable points are provided with notches 5 in which the ends of the belly band are secured and thus prevented from slipping on the bars.

In Fig. 5 of the drawings is shown a modified construction of the frame wherein the bars or members are connected together in a slightly different manner. In the form of the invention shown in Fig. 5 the longitudinal bars 6 are bent twice at a suitable point above the center thereof to form diverging ends and short parallel intermediate portions 7, said intermediate portions being soldered or otherwise rigidly secured together when the bars are assembled. To one side of the parallel connected portions of the bars 7 is soldered or otherwise secured a short sleeve 8 in which is secured the transverse bar 9 of the frame.

In Figs. 6 to 10 of the drawings is shown another modified form of the frame. In the last form of the invention the frame comprises longitudinal bars 10 which are bent at a point above their center in the same manner as the bars 1 shown in the first figures of the drawings, so that when said bars are assembled the upper and lower ends thereof will diverge to form the upper and lower ends of the kite. The bars 10 at the point where the same are bent to form diverging ends are also bent laterally to form short loops 11. Adapted to be engaged with the short loops 11 when the bars of the kite are assembled is a bar connecting disk or plate 12 having therein a centrally disposed slot 13 adapted to receive the loops 11 which are inserted therethrough. In the plate or disk 12 is also formed a transverse groove or depression 14 which is in line with the loops 11 when inserted through the slot 13 and with said groove and through the projecting portions of the loops 11 is adapted to be engaged the transverse bar 15 of the frame. By thus arranging the bar the latter is supported and also serves with the

disk or plate 12 as a means for fastening the longitudinal bars together in operative position. The longitudinal and transverse bars of the frame shown in the last two forms of the invention are provided with the cord receiving notches described in the first form of the invention.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention as defined in the appended claims.

Having thus described my invention, what I claim is:

1. A kite frame comprising longitudinal bars bent in an angle and secured intermediate their ends whereby said bars diverge to form top and bottom frame members, and a transverse bar interlockingly engaged with the secured portion of the longitudinal bars.

2. A kite frame comprising longitudinal bars bent laterally at a point beyond the center thereof, said bent portion of the bars being suitably secured and a transverse bar having formed therein a loop adapted to fit over and engage the secured connected portions of the longitudinal bars.

3. A kite frame comprising longitudinal bars bent at an angle and secured intermediate their ends and diverging to form the top and bottom portions of the frame, a transverse bar interlockingly engaged with the connected portions of the longitudinal bars, and means for securing the parts in their relative position in respect to one another.

4. A kite frame comprising longitudinal bars bent intermediate their ends and bent at an angle and closely assembled adjacent to their bent portions, a transverse bar formed to interlockingly engage with the connected end portions of the longitudinal bars, a disk having an opening formed therein for the reception of the bent portion of the transverse bar, said disk having grooves formed therein for the reception of the transverse bar on either side of the opening formed therein.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

EVERETT E. THAYER.

Witnesses:
GEORGE H. CURTIS,
M. B. DEWEY.