

C. J. HARDEKOPF.

Kites.

No. 135,987.

Patented Feb. 18, 1873.

Fig. 1.

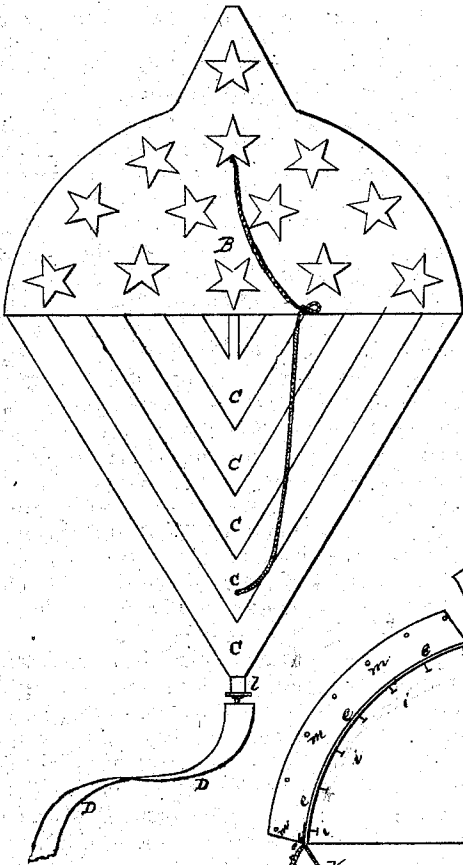


Fig. 2.

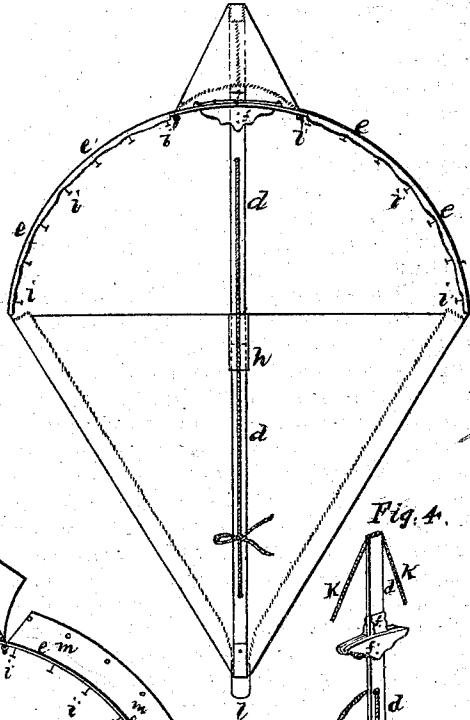


Fig. 3.

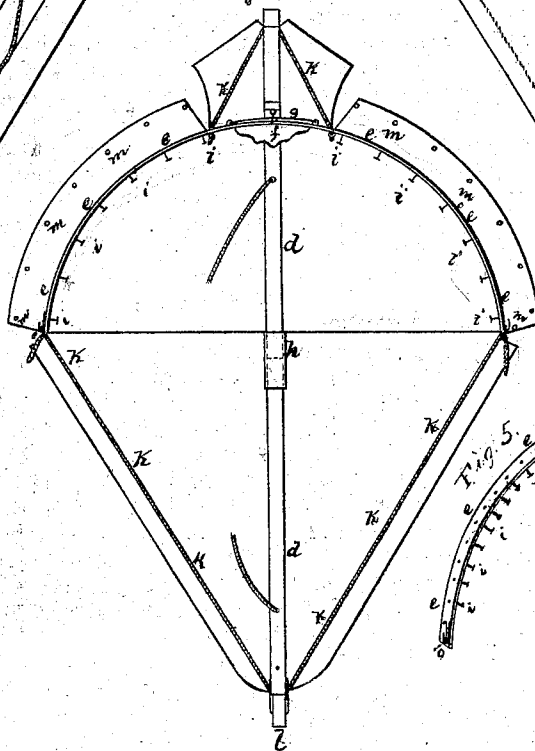
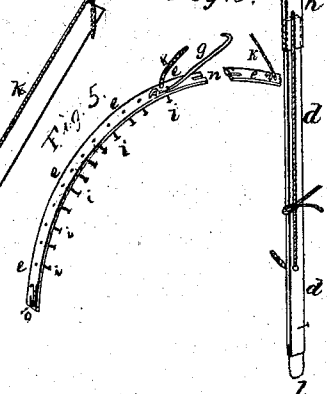


Fig. 4.



Fig. 5.



Witnesses.

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CHRISTIAN J. HARDEKOPF, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN KITES.

Specification forming part of Letters Patent No. 135,987, dated February 18, 1873.

To all whom it may concern:

Be it known that I, CHRISTIAN J. HARDEKOPF, of the city Philadelphia, in the county of Philadelphia, State of Pennsylvania, have invented certain Improvements in Kites, of which the following is a specification:

My invention consists of a kite of such formation as can be taken apart in six pieces and rolled up in a small bundle, carried from place to place by any one, and put together in a few moments. The kite is water and weather proof. The kite is firm and compact, and cannot be injured as the common kite can be.

Figure 1 is the kite complete ready for use, being the front view, showing the cover. This cover is of muslin, linen, silk, or even strong paper, rendered water-proof by an application of varnish, &c. It is of ornamental pattern. The part where the stars are marked B is of blue, the stars white, gilt, or any fancy color. The spaces C C C are alternate red and white. D is the tail, striped red, white, and blue.

Fig. 2 represents the back view of the kite, showing the manner in which the several parts are joined, $d d$ being the two upright supports, and $e e e e$ the two cross-supports.

Fig. 3 represents the kite, showing each part composing it before completion. Fig. 4 represents the upright support. Fig. 5 represents a section of one of the cross-supports.

The cover of the kite is described above in the description of Fig. 1.

The remaining parts are thus described: The upright support is composed of two pieces of wood, made thin, and of sufficient width to insure strength to the kite, this being regulated according to the size of the kite. The two pieces are seen in Fig. 4, $d d d d$. At about one-third of the distance from the top of the upper half of this support there are fixed four small pieces of wood upon opposite sides of the support, a space being left between them the thickness of the cross-pieces, to be hereafter described, the lower of these two pieces being longer than the other two, as seen at $f f$, Fig. 4. At the top of the upper half of this support $d d$ there is made a groove to receive the cord K K. The lower half has also a groove at its extremity to receive the cord K K, as seen in Fig. 3. At the top of the lower half of the upright support $d d$ there is made a cavity or receptacle for the lower end of the upper half of $d d$, made by placing

around the upper end of the lower half of $d d$ a piece of tin, and allowing it to project as seen at h , Fig. 4. Attached to the lower end of the support is a wire to receive the tail of the kite, as seen at l in the several figures. The cross-pieces, a drawing of one-half of which is seen in Fig. 5, are composed of two pieces of strong wood bent in the form of a bow, $e e e$. Fastened to the inside at equal distances are pins with heads $i i i$, the object of which is to hold on the cover, it being fastened by means of these pins through the holes $m m$, Fig. 3. At each of the upper ends of these cross-supports there is made a groove, n , Fig. 3, the exact width of the thickness of the upright support $d d$, Fig. 4. Now, these two cross-pieces are placed end to end and between the pieces $f f$, Fig. 4, making a tight fixture. This is made more secure by a hook, g , Fig. 5, fastened to the upper end of $e e$, Fig. 5, and going into an eye at the upper end of the other piece of $e e$. Fastened near the end of each piece is the cord K K, Figs. 4 and 5. At the lower ends are two hooks, o , Fig. 5, to which the cord K K, Fig. 3, is attached.

The kite is thus put together: Take the two upright supports $d d$; put the upper one into the cavity at the upper end of the lower half; then take the cross-pieces $e e$, Fig. 5; put one end between $f f$, Fig. 4; run the cord K K over the top of $d d$, Fig. 4. Then put in the other half of $e e$, as was done before between $f f$; fasten all with the hook g . Take the cover; put the top of $d d$ in a space at the top of the cover; button on the cover by putting the pins $i i$ through the holes $m m$, and then put the cord K K over the lower end of $d d$; run the kite-string through two holes in $d d$ out to the front of the kite; and the whole kite is ready.

It will be seen by this that the kite can be carried from place to place, disjointed, and in a moment put together ready for use. There is perfect elasticity of the cover when upon the frame.

I claim as new—

1. The combination joint $f f e e n g$ at the upper part of the upright supports.
2. The frame in its perfect construction.

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Witnesses:

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