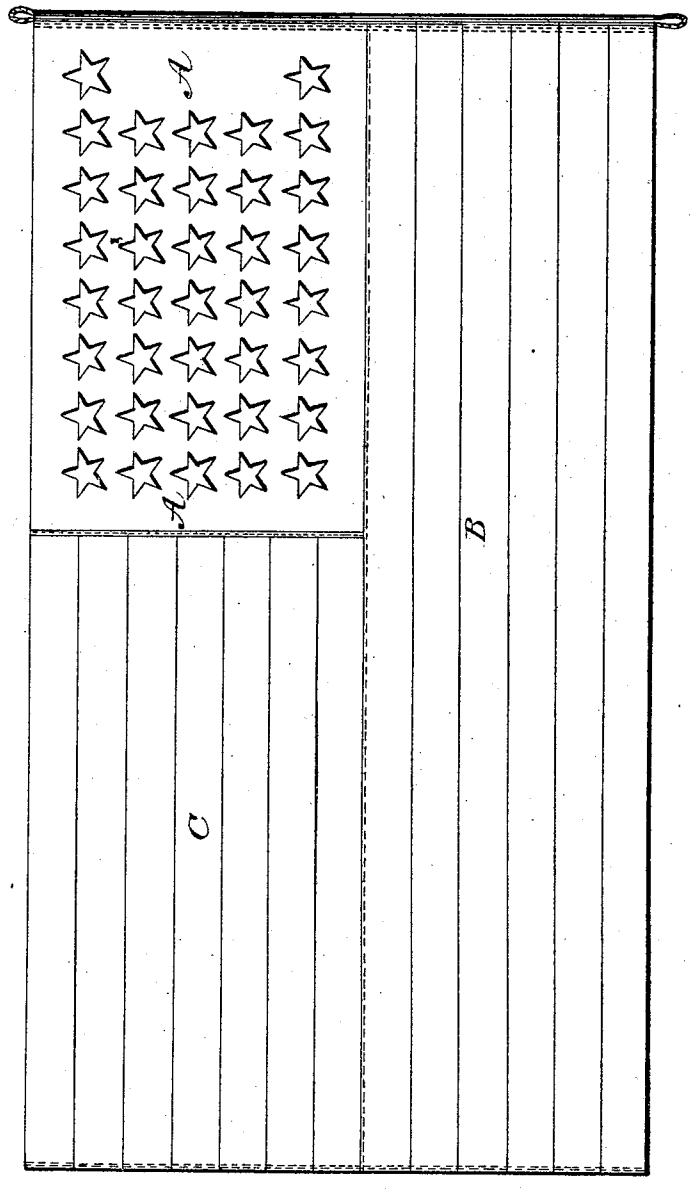
J. HOLT.

Signal Flag.

No. 102,267. Patented April 26, 1870.



Witnesses:
John E. Crane
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JOHN HOLT, OF LOWELL, MASSACHUSETTS.

Letters Patent No. 102,267, *dated April* 26, 1870.

IMPROVEMENT IN SIGNAL AND OTHER FLAGS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOHN HOLT, of Lowell, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Flags which are used for Signals, Ensigns, Colors, and National Emblems, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making part of this specification, in which I have shown a side view of an American flag or ensign as improved by me.

This invention consists in a new production by an old process, of a flag as a new article of manufacture, the stars and the stripes being produced by press-dyeing, a process described in the patent to Edward Brierly, and assigned to himself and to me, and dated December 11, 1849, and also in a patent to me dated March 26, 1867, for a method of forming the impression dies which form or produce the figures in press-dyed fabrics.

The subject-matter of this invention may be seen to have been contemplated in the patent last above named, viz: 1867, and in the following language:

Longitudinal grooves C and transverse grooves *f* are made in the substance of the inner sides of the plates A, and the grooves C are wide enough to admit of holes *c* being made through the plates at the bottom of each groove.

Either of the grooves may be made wider and admit of a larger or a different-formed hole that is either square, or oblong, or curved and ornamental, so that the dies cast in said mold will produce ornamental figures on the fabric, colored by the press-dyeing process where said dies are used.

The bars formed by the melted metal running into the grooves C and *f* serve as stays and connections for the dies or ornamental impression-surfaces, and may be varied in form and size to suit the figure to be used in coloring the fabric.

Thus it will be seen and understood that, although the peculiar form or figure of a star is not particularly mentioned in my said patent of 1867, such a figure or form of figure made on the impression-dies, or any other form of figure, was clearly contemplated in said patent.

The principal objects of this invention are to bring my former invention into more general and public use, and make it more extensively available, or for a wider range of useful purposes to facilitate and cheapen the process of making flags such as described, and to produce such flags at less cost than has heretofore been done.

It will be seen in the drawing that the field or union A is in one single piece.

That portion B of the flag below or at the side of the field, and also that portion C at the end of the field, are each in a single part or piece.

The stars in the field or union are produced by folding that portion over a suitable number of star-shaped metal dies, which are clamped tightly together, and the fabric immersed and colored or dyed in the usual way of press-dying.

The above-described process produces the field or union of, or for, a flag cheaper, lighter, and in every respect better than that which has the fabric cut full of holes and the stars sewed in, and this kind of a field or union may be employed for flags which are made of the ordinary bunting where each stripe was a separate piece, and a starry field or union for a flag, produced in this way and by the means described, is of itself a new manufacture which will not only cheapen the flag, but will make it more durable and less liable to injury, since there is no thread or stitches to rot or rip where the stars appear in field or union.

The stripes in my improved flag are also produced by the press-dyeing process, by which means, and by means of the impression-dies made according to the description in my former patent, I am enabled to produce a flag or ensign as well as a starry field for a flag, at considerably less expense than by the old method of sewing so many stripes together, besides making a lighter, better, and more durable flag, and which, as a manufacture or an article of manufacture, I believe to be new.

I have said that the stripes were produced by the press-dyeing process. This is done by folding the fabric over the dies in a similar manner as in the production of the stars before referred to, but greater care must be observed, and some additional devices provided to cover and protect the fold or to exclude the dye or coloring-liquid therefrom, but this device or apparatus is not fully perfected, and therefore cannot be described in this specification.

I have press-dyed the stripe portion of several flags by mitering the dies where the fabric is folded over their ends or edges, and by this means I have been enabled to press-dye such stripe portions very successfully.

The subject-matter of another invention and patent is contemplated in the above, and one which I believe cannot well be covered in this application; suffice to say, that by mitering the ends or the edges of the impression-dies, and then by folding the fabric over the mitered end or edge of one die, and clamping the mitered part of the next die fair against that first named, and onto the fabric, will be a sufficient description to enable those skilled in the art of press-dyeing to practice my present invention.

What I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a flag or ensign as described, the stars and stripes of which are produced by the press-dyeing process as specified.

2. As a new manufacture, the field or union A, the stars of which are produced by press-dyeing the fabric which surrounds them, as and for the purpose forth.

3. As a new manufacture, the stripe portion of a flag or ensign, the stripes which compose the same having been produced by press-dyeing, substantially as described.

JOHN HOLT.

Witnesses:
JOHN E. CRANE,
J. S. WHITNEY.