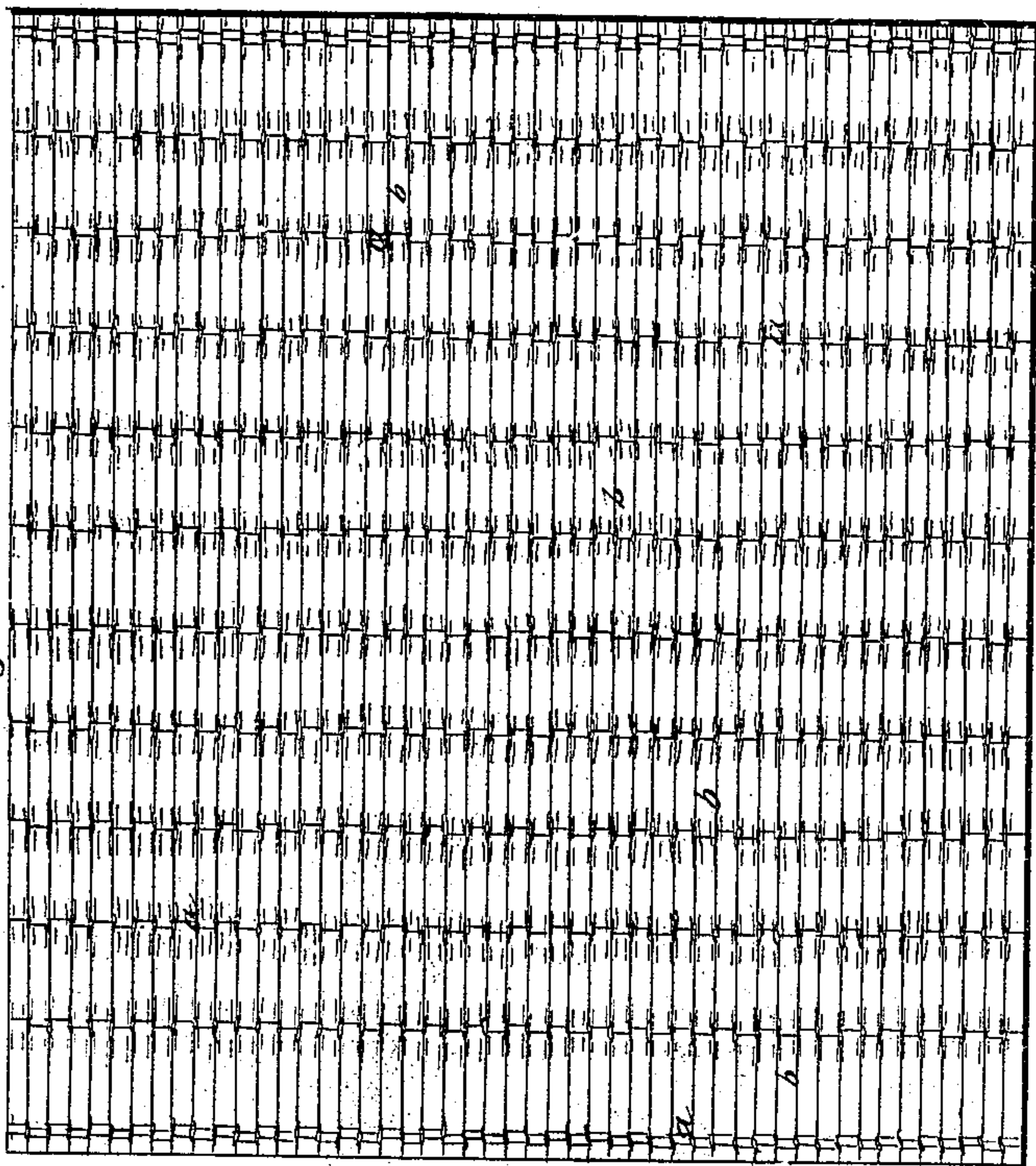


M. Vetter,
Inside Blinds,
Nº 66,915, *Patented July 16, 1867.*



Fig. 2

Fig. 1



Witnesses.
R. J. Campbell
Edw. Schafer

Inventor.
M. Vetter
by his agents
Mason, Fenwick & Lawrence

United States Patent Office.

MICHAEL VETTER, OF MUSCATINE, IOWA, ASSIGNOR TO HIMSELF AND
SIMON KAHN, OF SAME PLACE.

Letters Patent No. 66,915, dated July 16, 1867.

IMPROVED WINDOW-SHADE.

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, MICHAEL VETTER, of Muscatine, in the county of Muscatine, and State of Iowa, have invented a new and improved Window-Shade; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view of the improved window-shade.

Figure 2 is an edge view of the shade.

Similar letters of reference indicate corresponding parts in both figures.

This invention is designed to produce a new and improved article of manufacture, consisting of rye or other straws woven together in such manner as to form a very cheap and durable fabric, which is particularly useful for window-shades, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the manufacture of my improved article I employ any of the well-known forms of hand or power-looms which are adapted for common weaving, and arrange the warp-threads *a a* in the loom at suitable distances apart, according to the closeness and strength of fabric required. For the woof, which composes the principal part of the fabric, I use dry stalks of rye or other suitable straw, as shown at *b b*, which stalks are introduced between the shed or warp-threads, at every throw of the heddles, and are beaten up closely in the usual manner of weaving domestic carpets. When the straws are nearly of one size, and it is desired to have the fabric very thin, they may be used singly for the woof; but when the straws are small and of various lengths, two or more should be introduced into the heddles, so as to give uniformity of thickness and strength to the fabric. The thickness of the fabric will depend upon the number of straws laid together at each movement of the heddles, and care should be observed, in handling the straws, to have each whisp or strand of uniform size throughout its length. In beating up the woof between the warp-threads, the whisps of straw will be crushed and caused to lie closely together, so as to present an evenness of texture without destroying their required stiffness, and the narrow interstices which are left between the whisps of straw will admit of the passage of light through the fabric, and also render it sufficiently flexible to allow of its being compactly rolled up.

I prefer to employ rye straw as the woof, because of the glossy surface, and the beautiful yellowish color which it presents in the fabric, and also because of its strength and neatness when woven as described. I do not, however, confine my invention to this kind of straw, as other kinds may be used in its stead.

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

A window-shade which is composed of straws woven together in the manner described, as a new and improved article of manufacture.

MICHAEL VETTER.

Witnesses:

JOHN K. SEATT,

JAS. BARRICH.