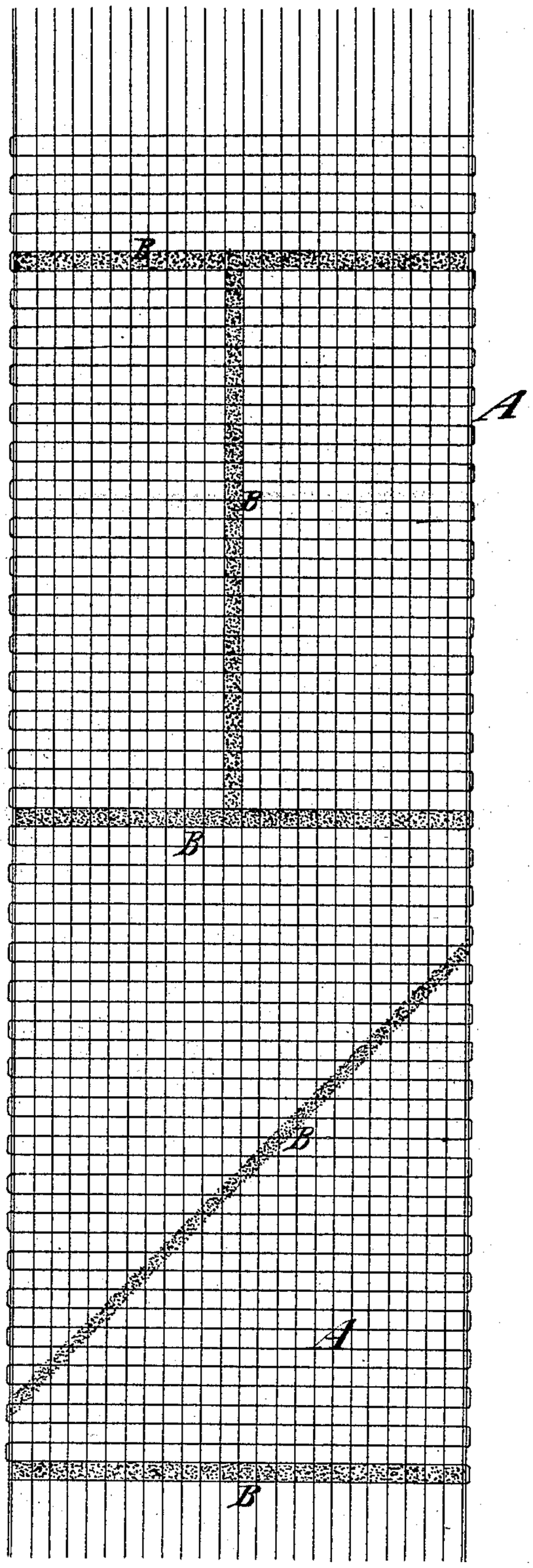
(No Model.)

E. GILBERT.

MANUFACTURE OF GALVANIZED WIRE CLOTH.

No. 316,615. Patented Apr. 28, 1885.



Witnesses:

Henry Hess

Matthew Pollock

Inventor:

Edwin Gilbert

by his attys.

Brown & Hall

UNITED STATES PATENT OFFICE.

EDWIN GILBERT, OF GEORGETOWN, CONNECTICUT.

MANUFACTURE OF GALVANIZED WIRE-CLOTH.

SPECIFICATION forming part of Letters Patent No. 316,615, dated April 28, 1885.

Application filed January 12, 1885. (No specimens.)

To all whom it may concern:

Be it known that I, EDWIN GILBERT, of Georgetown, in the county of Fairfield and State of Connecticut, have invented a new and useful Improvement in the Manufacture of Galvanized Wire-Cloth, of which the following is a specification.

In the ordinary method of manufacturing wire-cloth the weft-wires, and sometimes also the warp-wires, become displaced and the meshes of the cloth distorted by the handling to which it is subjected in the operation of galvanizing and between the weaving and galvanizing. The weft-wires get crooked or bowed, and this defect becomes so augmented in the end of a long piece of cloth that frequently the end portion for a yard or more is unsalable. The operation of galvanizing secures the warp and weft wires together at their points of intersection, and hence the wires cannot become displaced after galvanizing; but if displaced before galvanizing the zinc will secure them in their misplaced condition, and the cloth will always present a crooked and distorted appearance.

The object of my invention is to prevent such displacement of the weft and warp wires before galvanizing, and this result I attain by "tacking" the wires together at their points of intersection and at intervals longer or shorter in the length of the cloth. To so tack or temporarily secure and unite the wires, I employ ordinary solder or an alloy which will melt at a temperature about that of boiling water, and which is most commonly known as "fusible metal;" or I may use wax or other material which is always in tacky condition. I only desire to secure the wires temporarily, and therefore use a material or substance which will be melted by the heat of the galvanizing-bath and thereby removed from the wire, its function being thereafter permanently performed by the galvanizing metal, which secures the wires at all their intersections.

The accompanying drawing represents a piece of wire-cloth prepared for galvanizing according to my invention.

A designates the cloth, which may be of any desired degree of fineness, it being my intention to apply my invention to all cloth in which the wires are not so stiff and rigid as to themselves resist any tendency to displacement.

B designates the material or substance which is applied at intervals in the length of the strip of cloth. It may be applied in any suitable way, as by smearing solder or fusible metal on the cloth. It may be applied in lines or along lines which are diagonal on the cloth, or directly transverse thereto or lengthwise thereof, all of which arrangements of the substance or material B are represented in the drawing. Hard wax or other material or substance of a stiff and tacky nature may be used in lieu of metals. In short, I desire to use any material or substance which will temporarily hold the wires, and will melt or otherwise be removed from them by the heat of the galvanizing-bath. This application of the tacky material or securing metal may be made directly as the weaving progresses and before the cloth passes to the take-up beam or roll. After weaving and tacking, the cloth is operated upon, handled, or manipulated in the way heretofore common, and at the proper time is passed through the galvanizing-bath in the usual way. The material or substance B is melted from the wires, and the wires become firmly and permanently connected or joined at their points of intersection by the galvanizing metal. By my invention the wires will be temporarily secured and held against displacement until they become permanently secured by the galvanizing metal, and thus I overcome one of the great difficulties heretofore experienced by manufacturers of galvanized wire-cloth.

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

The improvement in the manufacture of galvanized wire-cloth, consisting in temporarily tacking the weft and warp wires together at intervals in the length of the cloth by a substance which will be melted off or removed by the heat of the galvanizing-bath, substantially as and for the purpose herein described.

EDWIN GILBERT.

Witnesses:
C. HALL,
FREDK. HAYNES.