

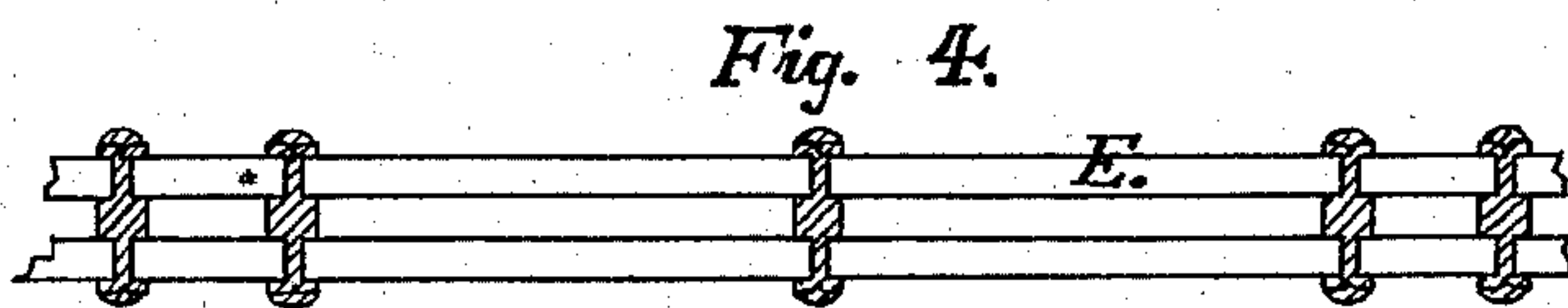
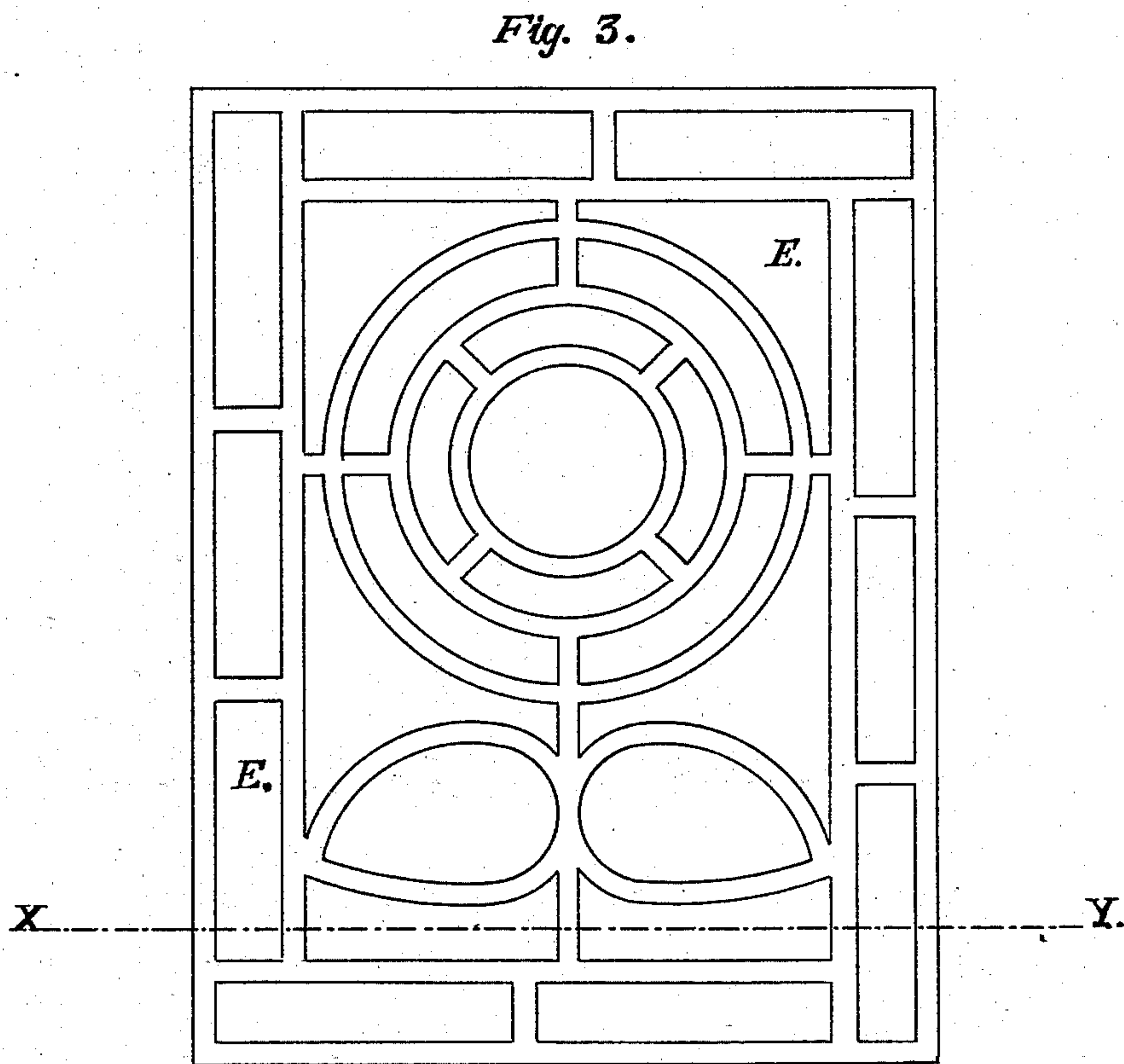
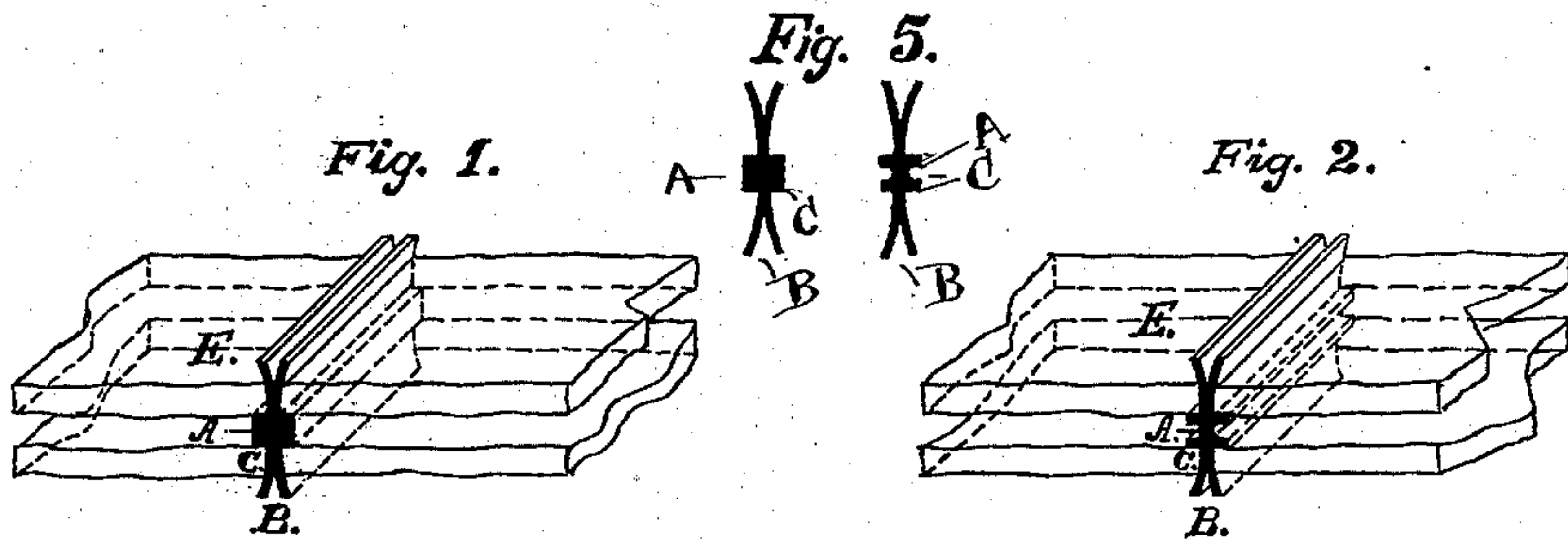
(No Model.)

A. FRIEDRICK.

FLEXIBLE SOFT METAL SASH BAR.

No. 283,093.

Patented Aug. 14, 1883.



Witnesses:  
Fred. E. Lockwood.  
Sidney Gibbs

Inventor:  
Alphonse Friedrich



# UNITED STATES PATENT OFFICE.

ALPHONSE FRIEDRICK, OF BROOKLYN, NEW YORK.

## FLEXIBLE SOFT-METAL SASH-BAR.

SPECIFICATION forming part of Letters Patent No. 283,093, dated August 14, 1883.

Application filed January 10, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, ALPHONSE FRIEDRICK, a citizen of the United States, residing at Nos. 16 and 18 Hoyt street, Brooklyn, in the county of Kings and State of New York, have invented a certain new and useful improvement in lead sash-bars for joining and glazing in uniform single lines two surfaces of pieces of thick or thin glass, or both, of even or uneven glass, or both, which have been shaped, molded, or cut previously in either straight, curved, or irregular lines, in conformity with designs used in making plain or decorative windows and screens or panels, where the said windows, screens, or panels are to be formed, either throughout their whole extent or in part, with two thicknesses of various pieces of glass in uniform single lines, of which the following is a specification.

Heretofore, in the art of making windows, screens, or panels formed in whole or in part with two thicknesses of glass, two distinct and separate frames or sashes have been used. Double sashes are used to exclude the action of cold or stormy weather, to exclude direct rays of the sun, to regulate the light of the inner decorated sash, and to embellish the latter, or to produce various effects of color in decorative work by introducing such glass in the outer sash as will best serve the purpose desired.

My invention consists of a single sash-bar, to be rolled out of lead, soft metal, or composition of metals, so as to form a center bar of such shape as required for light or heavy work and of such width as required to properly distance the inner from the outer surface of glass to be glazed, said center bar to have two flanges projecting from each of two opposite sides of such length as required for holding the thickest glass to be glazed, and forming rabbets on which the glass is afterward laid.

The process of forming the double sash is as follows: The lead sash-bars are cut to such lengths as required, then bent and joined at all connections over a design or pattern surface previously prepared and made for the purpose for the required windows, screens, or panels. The glass, which is also cut or shaped,

according to a similar pattern or design, to form one thickness of glass, is laid in the sash-frame, resting on the center bar, which forms rabbets, and is separated by the projecting flanges, which, after cementing the cavities between glass and flanges, are turned over down upon the glass. To secure the same in place, the joints and seams between the said flanges are then floated over with solder. As thin and thick glass may be joined together, it is well, before soldering, to trim or cut away the superfluous projections of the flanges, so as to make them uniform. The single sash thus formed is then turned over and glazed upon the other side in like manner to that above described, thus forming a double glass sash with a single sash-bar frame.

The application of the sash-bar hereinbefore described is further explained in the accompanying drawings, in which—

Figure 1 represents a sectional view of the improved sash-bar above described, in which A is the center bar, B the flanges, and C the rabbets to receive the glass E. Two sides of the center bar may be hollowed out, as shown in Fig. 2, for purposes of economy and lightness. Fig. 3 represents a design for a window screen or panel, in which E is the glass. Fig. 4 represents a sectional view of Fig. 3 through the line X Y, Fig. 3. Fig. 5 represents, in transverse section, forms of the bar.

Similar letters refer to like parts.

Having fully described my invention, its object, and manner of using the same, what I desire to claim and secure by Letters Patent is—

A combination soft-metal sash-bar for joining and glazing two thicknesses of heavy and light glass of uniform or of varying thicknesses combined, formed with a continuous center bar, with two continuous flanges projecting from each of two opposite sides of the said center bar, as shown in Fig. 5, substantially as and for the purposes hereinbefore described.

ALPHONSE FRIEDRICK.

Witnesses:

FRED. E. LOCKWOOD,  
SIDNEY GIBBS.