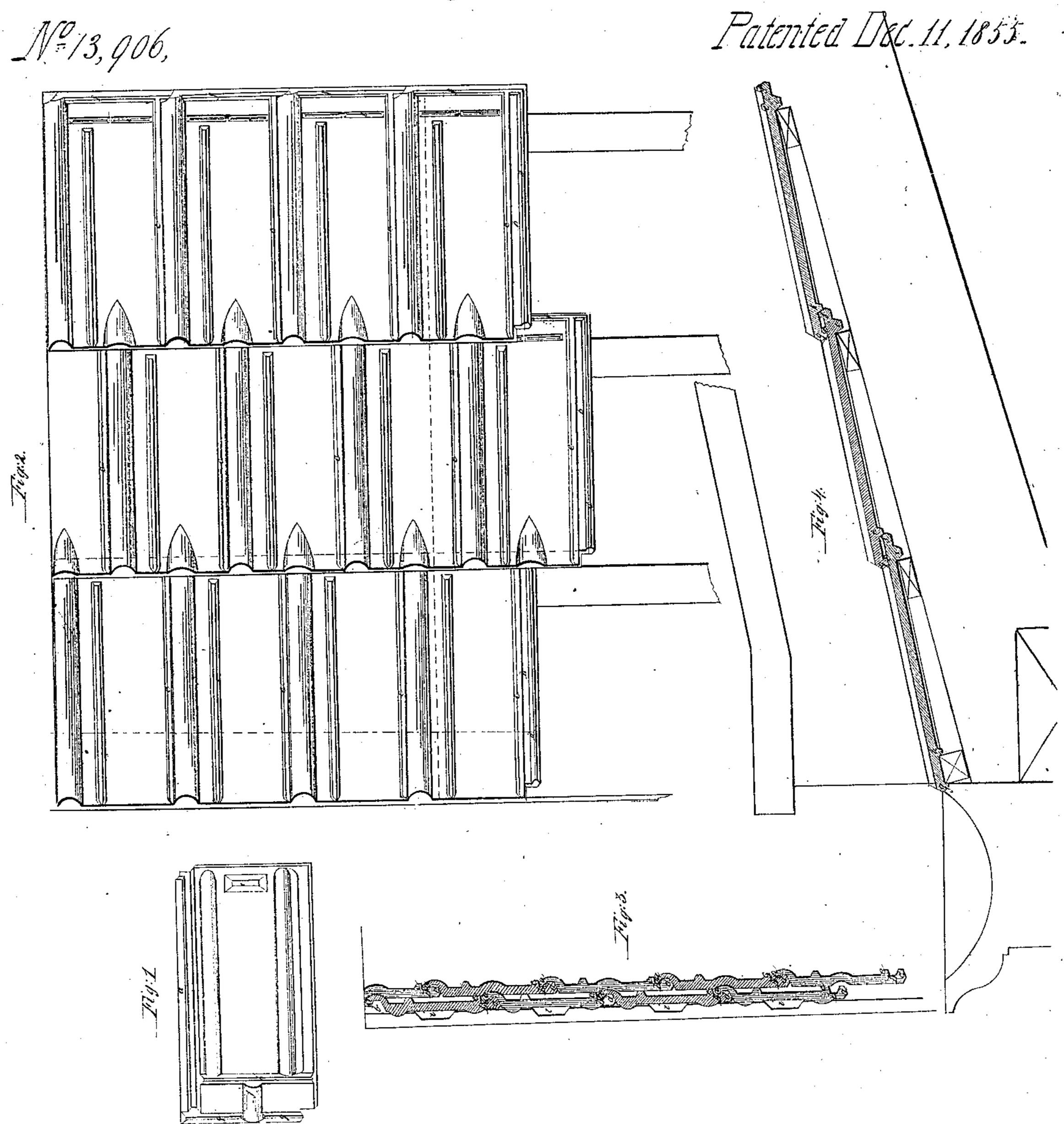
Costing Tile,



## UNITED STATES PATENT OFFICE.

G. GRAESSLE, OF HAMILTON, OHIO.

## TILE ROOFING.

Specification of Letters Patent No. 13,906, dated December 11, 1855.

To all whom it may concern:

Be it known that I, Gottlieb Graessle, of the city of Hamilton, Butler county, Ohio, have invented a new and useful Construction of Tile Roofing; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the annexed drawings, making part of this specification.

My invention consists in sundry devices whereby a tile roof is made more weather proof and durable than those customarily

employed.

In the accompanying drawings Figure 1 shows the under side of one of my tiles. Fig. 2 is a top view of a fragment of my roofing. Fig. 3 is a longitudinal section of the same. Fig. 4 is a transverse section thereof.

the weather, serve to assist the lugs (i) in I places on the purlins.

(j) is a recess to recess.

The tile is in its principal outlines of rectangular oblong form having its greater length in the direction of the shed. Each overlapping edge (a) at the part by which it rests upon the flat sublying surface (b) 25 of the contiguous tile, terminating in a sharp projecting angle as represented. Such construction of the tile at this part, prevents any insuction of rain by capillary force such as is apt to take place where the 30 junction is composed of closely contiguous and extended surfaces. The face of the sublying tile on both sides of the edge (a)is ridged (cd). These ridges serve both to stiffen the tile, and to maintain both it and 35 its contiguous tiles in their proper relative positions, and in addition to these services,

the ridge (c) guards the side joint from the entrance of wind and rain. Athwart the upper face of the tile, near and parallel to its top margin runs a ridge (e) and another one (f) skirting said margin, and across the under surfaces of the overlapping tier of tiles run two other ridges  $(g \ h)$ , one (g) skirting the lower edge, and the other one (h) placed parallel and at such distance therefrom as to embrace between them the ridges  $(c \ d)$  on the tile below. These ridges projecting in double tiers from the contiguous surfaces of the tiles, effectually exclude the weather, serve to brace the tiles and assist the lugs (i) in holding them to their places on the purlins.

(j) is a recess to receive the portion of the lap which lies beneath the tier above. I claim as new and of my invention.

The construction substantially as described of tile roofing having each overlapping edge (a) resting by an angle only upon the flat sublying surface (b) between the ridges  $(c \ d)$  of the adjacent tile, and having two transverse ridges  $(e \ f)$  on the top of each tile, inclosed by similar ridges  $(g \ h)$  projecting from the superjacent under surfaces of the tier next above for the purposes explained.

In testimony whereof, I hereunto set my hand before two subscribing witnesses.

## GOTTLIEB GRAESSLE.

Witnesses:

GEO. H. KNIGHT, J. B. BENNETT.