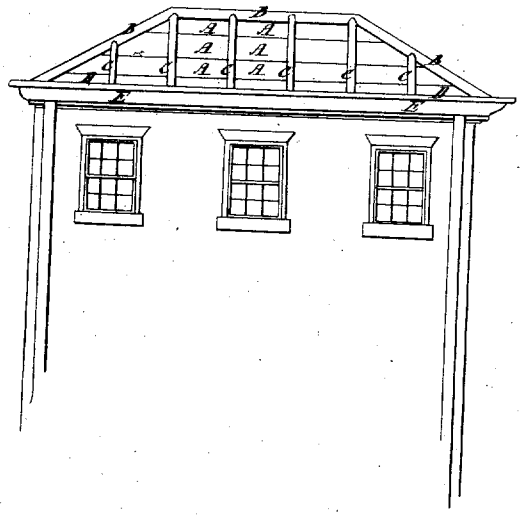
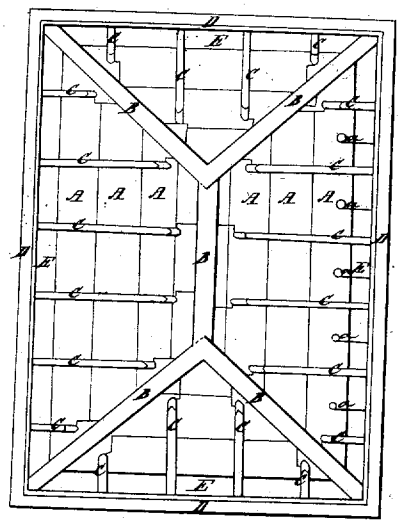
8035X

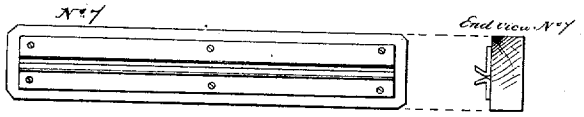
# J. Henson.

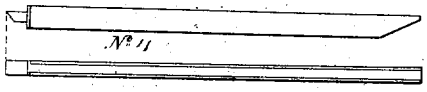
## Metallic Roof.

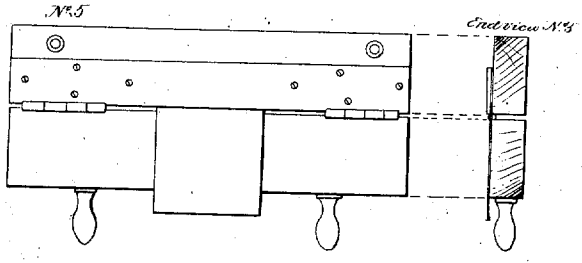
Patented Feb. 28, 1834.

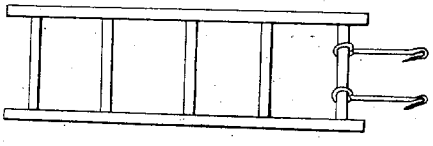


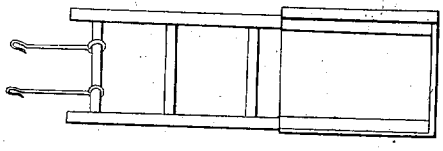


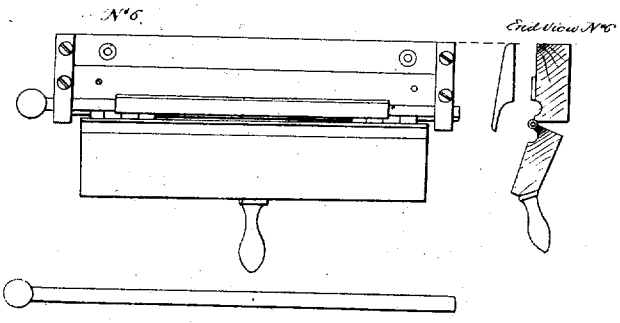


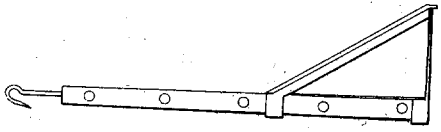





THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

2/28/1834 8035X

Ar. 13
Feb. 28. 1834 579.

# John Henson
## Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description in the words of the said John Henson himself of his improvement on tin & water tight roofs covered with tin or any other Metallic substance

---

To all to whom these presents shall come Be it known that I John Henson of Lexington Va. in the County of Rockbridge & State of Virginia have invented certain new improvements on the late patent obtained by C. Bonnycastle for constructing roofs covered with tin & other metals & have invented new tools & machinery for performing the work & that the following is a full & exact description of my improvement on the Bonnycastle patent & on the tools & machinery used to do the work which improvements tools & machinery were invented and improved by me. Fig 1st Represents a double lock spring circular comb on the top of the roof (in place of the small soldered elbows which unite the heads on the Bonnycastle roof) which is a perfect security against leakage & makes a more consistant & substantial finish to the work. It is constructed in the following manner edges of one inch deep are laid off on the upper range of the tin or metal that the roof is covered with on each side to receive in opposite directions. Cramps of tin are interchanged between to secret nail the covering at top. Then follows a flat spring cap secured by cramps let into the same & over the whole is sprung a large circular tube to prevent any water entering under the covering. Figure the 2nd Represents the different small sheet of tin manufactured annually lengthways by half inch grooves making as it were one continued sheet from the eve to the top of the comb or cap the doing away the necessity of capping the sheet as on the Bonnycastle plan & thereby making the work perfectly water tight & leaving the sheets free to expand & contract in which will naturally take place when the tin is in one large continued sheet and has no seam to stop in the joints. When the ends are open at each sheet there is no danger to the weather when on the roof.

Drawing

8035x

574

roof 9 by 12 inches & no other required to unite the same. Figure 3d Represents an improved mode of making the gutter at the eave showing how it is secured to the rafters or planks under the tin without the aid of iron spikes or tin or copper straps to secure it to the roof thereby preventing the dripping such spikes & straps create by spiking through the tin & also securing any drop of water that comes from the roof & preventing any passing between the gutter & cornice. Where it will be observed the head on the roof corresponds to the head on the front of the gutter as a stay to support to it. The circular part of the gutter is made 11 inches the part that lays on the cornice 4 inches the model will further explain. Figure 4 Represents one side of the model covered so as to be fire proof on both sides. The rafters being made of inch & half pine plank by 4 & an half inches deep & let into a wind beam at top & cornice plate below when over 10 or 12 feet long transverse pieces are let in of 2 inches deep. These rafters stand 11 inches apart from each other & the tin is shuttled over & the joints lock on the centre of the rafter. The whole of this frame to support the tin is covered with sheet tin. no sheathing plank is used & the roof constructed in this way is perfectly substantial & fire proof on both sides affording firemen an immediate entrance with their hose when it is necessary to introduce it thro' the roof. Figure 5 Represents a machine to make the locks & edges on the tin with certain improvements on it on the form of an open butt hinge. Model will explain to form the beads that unite the joints to the roof. Figure 6 Represents a machine made of plank & sheet iron to unite the beads in joints of 6 feet long. Plank 6 feet long 4 & 4 inches wide. 2 pieces of iron with edges to hold the beads uniting the solderings. The model will explain Fig. 7 Represents a set of chain ladders made of plank to serve as scaffolds to paint on a roof. The ladders are 6 feet long 12 inches wide. 2 hooks of iron made like S. are made to unite between the joints on the shingle plank to take the upper end in each of the other hooks ends of the ladders 2 & 2 hooks this one in centre so that a chain of ladders from 6 to 18 may be united & connected together to form a moveable roof scaffold

Witness Wm Paine Jr
W. A. Howard

Peter Hewson

806 187