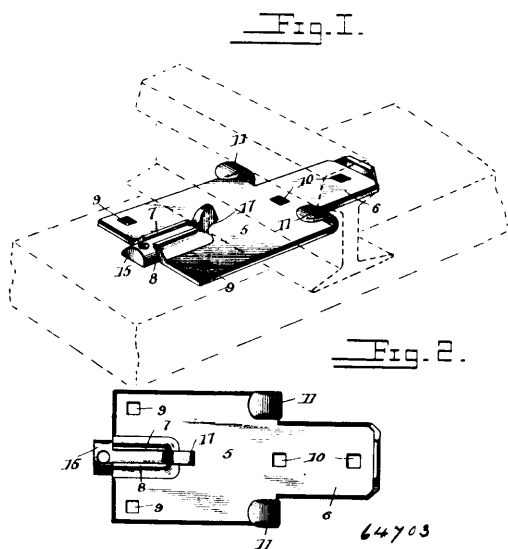
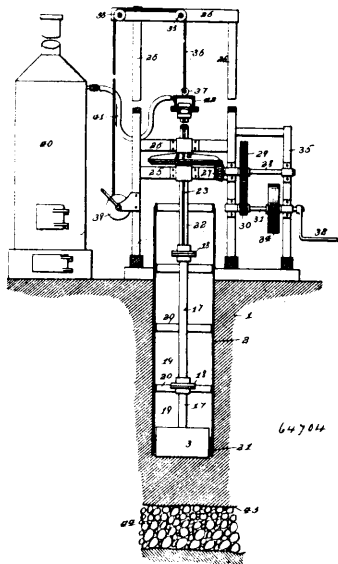


tion forming continuations of the shoulders and bent to lie over and parallel with the body portion, said tongues being separated by an



interspace to expose the edge of the rail flange, an opening intermediate the tongues adapted to receive a spike to hold the plate upon a tie and engage the flange of a rail with its head, a slot in the opposite side of the plate having its edges bent upwardly and inwardly to form converging ears, a bolt slidably arranged between the ears and adapted to engage the flange or a rail at its opposite sides from the tongues, the underside of the bolt being disposed against the supporting tie, and an opening in the bolt adapted to receive a spike to hold the bolt against movement.

No. 64,704. Mechanism for Mining in Frozen Earth.
(*Mécanisme pour miner dans la terre gelée*)

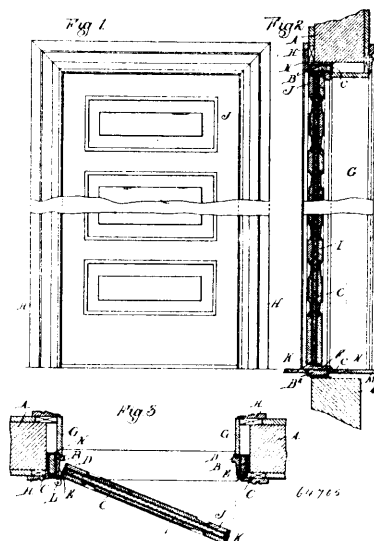


John Edward Stuart, Winchester, California, U.S.A., 2nd November, 1899; 6 years. (Filed 21st April, 1898.)

Claim.—1st. An apparatus for mining in frozen earth, comprising an auger consisting of an annular flange having an interior cross plate formed with a radial opening, and with a radial depending flange projecting beneath the opening, and a radial cutting plate secured to the depending flange, a cylinder, annular lugs and bolts whereby the cylinder is secured to the cross plate, a hollow shaft secured to the cross plate whereby the auger is supported, and a centrally located V-shaped bracket secured pendently to the cross plate beneath the hollow shaft and crosswise of the radial openings, substantially as described. 2nd. An apparatus for mining in frozen

earth comprising an auger consisting of an annular flange having an interior cross plate formed with a radial opening, and with a radial depending flange projecting beneath the opening, a radial trap door or valve controlling the radial opening, and a radial cutting plate secured to the depending flange, a cylinder, annular lugs and bolts whereby the cylinder is secured to the cross plate, a hollow shaft secured to the cross plate whereby the auger is supported, and a centrally located V-shaped bracket secured pendently to the cross plate beneath the hollow shaft and crosswise of the radial openings, substantially as described. 3rd. In an apparatus for mining in frozen earth, comprising an auger consisting of an annular flange having an interior cross plate formed with radial openings, and with radial depending flanges projecting beneath the openings, radial trap doors or valves controlling the radial openings and radial cutting plates secured to the depending flanges, a cylinder, annular lugs and bolts whereby the cylinder is secured to the cross plate, a hollow shaft secured to the cross plate, whereby the auger is supported, and a centrally located V-shaped bracket secured pendently to the cross plate beneath the hollow shaft and crosswise of the radial openings, substantially as described. 4th. The herein described method of mining in frozen earth, which consists in thawing by the application of steam, and the mechanical removal of a section of the earth, than drilling lateral holes, then thawing the earth in a lateral direction in close proximity to the "pay dirt," and then removing said thawed earth and "pay dirt," substantially as set forth.

No. 64,705. Fire Resisting Wooden Structures.
(*Construction à l'épreuve du feu.*)



Alphonse de Man, Detroit, Michigan, U.S.A., 2nd November, 1899; 6 years. (Filed 29th August, 1898.)

Claim.—1st. In a wood structure, the combination with the various constituent members, of a non-combustible insulating wrapping for the members, the wrapping of each member consisting of penetrable material entirely surrounding, covering and sealing the same, thereby forming a double course of insulating material at the points of union and contact of the various members, substantially as described. 2nd. A fire resisting wooden structure consisting of an interior wooden core, a covering of fire proof material inclosing it to prevent access of air for combustion, and a finishing facing on the exposed portions of the insulating material. 3rd. The combination with a fire-proof wall, having a door-opening therein, of a wooden door frame, formed of a core of wood, a fire-proof insulating sheathing enclosing the core of wood, an exterior wood-finish on the core, and a practically fire-proof door within the frame, substantially and for the purpose set forth. 4th. The combination with a fire-proof wall, having a door-opening therein of a wooden door-frame, consisting of the core B, B¹, B², formed of wood, inclosed within a fire-proof insulating sheathing, and the face jambs D E veneered on the core admitting, to match any kind of wood, and a practically fire-proof door therein, substantially and for the purpose set forth. 5th. In a fire resisting door frame composed of an insulated wooden core and a wooden facing, the rabbet strips E c veneered on the fire-protected core, admitting to let in the hardware without damaging the fire-proof sheathing, also to accommodate any variation of the door by altering the thickness of the rabbet strips. 6th. Wooden fire resisting doors, comprising in combination an insulated core made of wood, inclosed by a fire-proof insulating sheathing extending unbroken over the faces and the edges,