

**No. 16,234. Improvement on Steam Generators and Furnaces.** (*Perfectionnement des générateurs de vapeur et des foyers.*)

Claudius A. Candler and James Whitehead, Detroit, Mich., U.S., 31st January, 1883; for 5 years.

*Claim.*—1st. In a steam generator furnace and in combination with such generator furnace and with the boiler, the heater D provided with flues through the same and connected with said boiler by the pipes Q P and Q1, the former communicating with the boiler in rear of the bridge wall, while the latter communicates with the boiler above the flues and passes through the smoke jacket. 2nd. The dampers H I, hollow open on one side only and with a front perforated wall and adapted to close the openings between the boiler and the bridge wall. 3rd. In a steam generator furnace and in combination with a locking device P, two crank levers O adapted to operate the dampers H I reversibly or independently of each other. 4th. The combination with the heater D thereof, of the vertically sliding dampers H I, the shaft N, lever M and rod L connected to the damper I, the hollow shaft X, lever M, the rod L connected to the damper H and the operating handles O O. 5th. The combination, with the alternately opening and closing dampers H I, of the crank lever O for operating said dampers, said levers being arranged in front of the furnace doors, whereby it will block one of the doors and prevent the same from being opened, when either of the dampers is entirely opened or closed. 6th. The combination, with the alternately and vertically reciprocating dampers, of the means for operating the same from outside, the furnace walls.

**No. 16,235. Improvement in Knitting Machines.** (*Perfectionnements des machines à tricoter.*)

George A. Nye, Bristol, Penn., U. S., 31st January, 1883; for 5 years.

*Claim.*—1st. The combination of the stationary cam plate D and the two movable cams E F and their operative mechanism, consisting of the slides G H, links J J, levers I K, post L, cam M, shaft T, worm gear K, worm L, shaft W and clutch N. 2nd. The combination, with the head U, latch V and adjustable cam, of the lever I provided with stud S, and mechanism for operating said lever.

**No. 16,236. Improvement on Washing Machines.** (*Perfectionnement des machines à laver.*)

Joseph H. Manton, Hull, Que., 31st January, 1883; for 5 years.

*Claim.*—1st. The combination of the suds box A, corrugated curved spring bottom, or yielding washboard B and rotary brush E mounted within the concavity of the washboard and journaled in bearings on box A, whereby the clothes will be wound upon the brush and by rotary motion be washed. 2nd. The yielding curved corrugated washboard B within the suds box A, in combination with a rotary brush E journaled to turn in the concavity of the washboard. The combination, with the suds box A, of the spring yielding washboard B and rotary brush E, whereby the brush winds the clothes thereon and are interposed between two yielding washing surfaces.

**No. 16,237. Improvement on Axes.** (*Perfectionnement des essieux.*)

Zotique Tremblay, Haverhill, Mass., U. S., 31st January, 1882; for 5 years.

*Claim.*—1st. The axle A, provided with the screw D and key C. 2nd. An axle provided with a key for securing the helve, and a set screw by which the key is forced into contact with the helve within the eye of the axle. 3rd. The axle A having the lower portion Z of its eye V-shaped and inclined downwardly from its inner to its outer end, and its upper portion G flat, the helve B having its upper portion from a

to a flat, and its lower portion from b to v inclined to form an angle or shoulder at t, the pole E provided with the diagonally arranged screw D and the key C provided with the notch f. 4th. The screw D and key C for securing the helve B in the axle A. 5th. In a device for securing the helve of an axle in its eye, the key C having one of its sides provided with a notch f, or means for engaging the screw used for forcing it into position. 6th. In a device for securing the helve of an axle in its eye, the screw D.

**No. 16,238. Improvements on Games.**

(*Perfectionnements aux jeux.*)

Joseph Froin, Paris, France, 31st January, 1883; for 5 years.

*Claim.*—A game founded upon geographical or historical subjects, composed of a map of the continent or country, the geographical or historical study of which is to form the subject of the game, and a pack of cards corresponding in number to the number of geographical or political subdivisions of the continent or country, each card being marked with a picture or vignette, of the subdivision represented by it, and with the chief geographical or historical data connected with such subdivision.

**No. 16,239. Improvements on Carriage Top Setters.** (*Perfectionnements aux châssis de carrosserie.*)

Richard H. Lewis, Oshawa, Ont., 31st January, 1882; for 5 years.

*Claim.*—A frame for setting carriage tops having the base A A, posts B B B, jointed centrally of their length and provided with jamb nuts G, and notched horizontal bars C C connected by jointed rod D, the whole attachable to a carriage seat.

**No. 16,240. Improvements in Lifting Jacks.** (*Perfectionnements aux crics.*)

Selah M. Baird and John M. Baird, Holly, Mich., U.S., 31st January, 1883; for 5 years.

*Claim.*—1st. The bent and curved arm F and the horizontal arm G, both sliding on the vertical shaft C. 2nd. The chain c attached to the horizontal arm G, and passing through the eye d attached to the upper end of the shaft C, in combination with the bent and curved arm F and the horizontal arm G.

**No. 16,241. Improvement in Millstone Alarms.** (*Perfectionnement des signaux de meunerie.*)

William Lunhoff, Detroit, Mich., U. S., 31st January, 1882; for 5 years.

*Claim.*—1st. The combination, with a hopper and a valve or flexible wing located thereon, of a signal mechanism provided with a bell and a bell hammer having a spring arm provided with a projecting tripping tail or end, a pivoted lever carrying said signal mechanism, a rotary wheel arranged below said arm or adjacent thereto, and having a projection arranged to strike the projecting end of the bell hammer, an adjustable counterpoise arranged upon said lever, and a flexible connection between the free end of said lever and the valve or wing, in the hopper. 2nd. The combination, with the lever E, chain b and the signal mechanism carried by said lever, of the valve or wing B, chain H having ring k, pin h1, and weight H2. 3rd. The combination, with the hopper and the valve or wing thereon, of the chain b, the pulleys E1 E1 over which said chain passes, the pivoted lever E having its free end attached to the lower end of said chain b, the signal mechanism mounted on said lever and having a bell, and a spring bell hammer provided with the projecting end d2, the rotary wheel provided with the pin C3, the chain H connected to the free end of the lever, the pulley H1, the ring k inserted in said chain H, the weight H2 and the stationary pin h1.