and an extended yielding base or foot flange, substantially as specified 5th. In a dumping cart or vehicle, the elastic rubber pedestal N having an extended base or foot flange b_3, in combination with the metal bearing a_3, having a socketed fit within said pedestal, essentially as described. 6th. In pivot supports for dumping carts or vehicles, the metal box or upright O, constructed with a hollow body part having a vertical slot c_3 in its inner face or side, an extended base and a mud guard d_3 upon its outer face or side, essentially as described. 7th. In pivot supports for dumping carts or vehicles, the combination of the elastic rubber pedestal N, having a base flange b_3, the socketed metal bearing a_3 and the metal box or upright O adapted to enclose said pedestal and bearing, and provided with a vertical slot c_3 in its inner face or side, substantially as specified.

No. 29,988. Hot Water Attachment for Stoves. (*Appareil à eau chaude pour poêles.*)

Gilbert T. Brewer, Hoboken, New Jersey, and Francis J. Homan, New York, N.Y., U.S., 13th October, 1888; 5 years.

Claim—1st. The combination, with a cylinder or barrel stove, of the hot water attachment, consisting of a tank seated on the top of the stove, the boiler supported on a level with and extended in contact with the shell of the fire-pot, and the circulating pipes connecting the tank with the boiler. 2nd. The combination, with a stove, having the interior recess *f* in the fire-box, of the hot water attachment, consisting of a tank *a* seated on the top of the stove boiler *c*, located in the recess *f* in the shell of the fire pot, and the circulating pipes *d*, *e*, connecting the tank and the boiler, substantially as described. 3rd. The combination, with a stove, having the interior recess *f* in the fire-box, of the hot water attachment, consisting of tank *a* seated on the top of the stove boiler *c*, located in the recess *f* in the shell of the fire-pot, and the circulating pipes *d*, *e*, connecting the tank and the boiler, said boiler and tank having other circulating pipes, as *d*1, *e*1, for heating purposes, substantially as described.

No. 29,989. Seat for Bath Tubs. (*Siége pour baignoire.*)

George B. Sloat, Philadelphia, Penn., U. S., 15th October, 1888; 5 years.

Claim.—1st. In a seat for bath-tubs, the combination, with the seat proper A, of the attached upturned arms or hangers B, B, adjustable in and out relatively to the length of the seat, and provided with upper sliding supports or projections *f*, *f*, essentially as shown and described. 2nd. As an improved article of manufacture, a bath-tub seat, consisting in the seat proper A, having longitudinal grooves in its under side, the oppositely-arranged Z-shaped hangers B, the lower horizontal members of which are longitudinally slotted and enter the grooves from opposite ends of the seat, and the set screws extending through said slots for holding the hangers in any desired position, substantially as set forth.

No. 29,990. Breasting Attachment for Boot and Shoe Heeling Machines. (*Appareil pour façonner les talons de chaussures.*)

Martin C. McGenness and John Tweedie, Jefferson Miss., U. S., 15th October, 1888; 5 years.

Claim.—1st. In a breasting attachment for heeling machines, the combination herein described, with a block, of a knife held to slide vertically in one end of the said block, a nut held on the said knife, and a screw-rod engaging the said nut and adapted for raising and lowering the said knife, substantially as shown and described. 2nd. In a breasting attachment for heeling machines, the combination herein described, with a block, of a knife having a dovetailed plate held to slide in one end of the said block, a nut secured in a recess of the said plate, a screw-rod screwing on the said nut, and a disk formed on the said screw-rod, and resting on a support formed on the said block, substantially as shown and described. 3rd. In a breasting attachment for heeling machines, the combination herein described, with a block, of a knife provided with a plate held to slide vertically at one end of the said block, a nut held in the said plate, a screw-rod screwing in the said nut, a notched disk formed at one end of the said screw-rod and resting on a support of the said block, and spring-pin adapted to engage the notches of the said disk, substantially as shown and described. 4th. In a breasting attachment for heeling machines, the combination, herein described, with a block A and top plate J, of gripping fingers held to slide on the bottom of the said block, substantially as shown and described. 5th. In a breasting attachment for heeling machines, the combination, herein described, with a block, of a knife held vertically adjustable at one end of the said block, and gripping fingers held to slide on the bottom of the said block, substantially as shown and described. 6th. In a breasting attachment for heeling machines, the combination herein described, with a block, of gripping fingers held to slide on the bottom of the said block and adapted to engage the top plate of the heel, lugs formed on the said gripping fingers, and held to slide transversely on the said block, and a right and left-handed screw-rod engaging the lugs on the gripping fingers, substantially as shown and described. 7th. In a breasting attachment for heeling machines, the combination herein described, with a block, of gripping fingers held to slide on the bottom of the said block, and adapted to engage the top plate of the heel lugs formed on the said gripping fingers, and held to slide transversely on the said block, a right and left-handed screw-rod engaging the said lugs on the gripping fingers and springs secured to the said gripping fingers and adapted to engage the rim of the top plate of the heel, substantially as shown and described. 8th. In a breasting attachment for heeling machines, the combination herein described, with a block of a knife held to slide vertically at one end of the said block, a screw-rod engaging a nut on the said knife for adjusting the latter vertically, gripping fingers held on the bottom of the said block, and provided with threaded lugs, and a right and left-handed screw-rod screwing in the said lugs for adjusting the said gripping fingers, substantially as shown and described.

No. 29,991. Stanchion for Securing Cattle within the Stables. (*Stalle de Bétail.*)

Henry C. Miner, Stafford, New York, N. Y., U. S., 15th October, 1888; 5 years.

Claim.—1st. The combination, with the supporting frame, having the upper beams C and lower beam D, of the swinging stanchion E, the locking bail G, having the offsets *g*, inclined shoes H and downward spring-supporting lever, the spiral spring A, the spring retaining pin h^1 and the staples *g*, substantially as and for the purpose hereinbefore set forth. 2nd. The combination, with the supporting frame provided with the upper beam, of the swinging stanchion, the inclined bail notch in the same, and the hinged locking bail having the uprising operating handle, substantially as and for the purpose hereinbefore set forth. 3rd The combination, with the supporting frame, having the upper and lower beams, and the swinging stanchion, of the stop block F between the upper beams and the spring *f* within said block for opening said stanchion, substantially as and for the purpose hereinbefore set forth.

No. 29,992. Bench Plane. (*Rabot.*)

Philippe Nicol, Ste. Pudentienne, Que., 16th October, 1888; 5 years.

Claim.—1st. The combination of the wedge and plane iron holder *c*, substantially as and for the purpose hereinbefore set forth. 2nd. The combination of the plane block A, which is reduced to half the ordinary thickness, and iron holder C, substantially as and for the purpose hereinbefore set forth.

No. 29,993. Combined Punching and Shearing Machine. (*Cisailles et poinçon combinés.*)

Evangéliste Guertin, Sherrington, Que., 17th October, 1888; 5 years.

Reclame.—Une cisaille et poinçon combinés, composés des branches C et E1, articulés en *a*, *b*, *c*, *d*, *e*, *f*, munies des plaques D et H, des guides F, F1 et P, des bras M, M1, M2, et J, J1, avec les pièces annexes N, G1, H1, et, du poinçon K, K1, L, I1, I, le tout tel que ci-dessus décrit et combiné de la manière sus indiquée pour en arriver aux fins sus-mentionnées.

No. 29,994. Improvements on Machines for Making Picket Fences. (*Perfectionnements aux machines à clôtures métalliques.*)

Lyman T. Curtis and Theodore J. George, Flint, Mich., U. S., 17th October, 1888; 5 years.

Claim.—1st. In a machine for making picket fences, the combination of the twisters H, each composed of two frames which are secured to the end of the operating shaft, and each frame provided with two holes through which the wire passes, with a reel I which is journalled in each frame, and which reels are carried around with the twisters, substantially as shown and described. 2nd. The combination of the shaft R, provived with the pulleys U, Q, the chains for connection with the sliding table and with the treadle and the discs W upon the ends of the shaft, the discs being made of greater diameter than the pulleys, so as to prevent the pickets coming in contact with the pulleys, substantially as set forth. 3rd. In a machine for making picket fences, the combination of the wire twisters, the sliding table provided with devices for holding the pickets, guides or ways L, provided with stop-pins, the counter-weight connected to one end of the table, the operating shaft provided with pulleys U, chains by which the shaft is connected to the table, and the treadle connected to the shaft, substantially as specified. 4th. In a fence making machine, the combination of the main frame, the wire twisters, the shaft X having an operating wheel at one end, and the series of hooks A1 swivelled in said shaft, as and for the purposes specified.

No. 29,995. Apparatus for Supplying Combustible Fluid to Oil or Gas Motor Engines. (*Appareil pour alimenter au moyen de fluide combustible les machines à huile ou à gaz.*)

The Petroleum Power Co., London, Eng. (assignee of Gaston Bagot, Brussels, Belgium), 17th October, 1888; 5 years.

Claim—1st. The construction and use of apparatus for supplying combustible fluid to an oil or gas motor engine, such apparatus consisting of a vessel B heated by products of combustion discharged from the cylinder, and provided with an injector M, E, so arranged that a regulated quantity or air drawn in during the charging stroke causes oil or hydro-carbon to flow in regulated quantity into the vessel in finely subdivided condition, and to impinge on the heated material of the vessel B, whereby it is converted into vapor or gas, which, mixed with air, constitutes the combustible charge, substantially as described. 2nd. For starting vaporizing apparatus, such as is referred to in the preceding claim, the construction and use of a lamp, consisting of the oil vessel P, containing a wire wick Q, having above it an orifice R and chimney S, substantially as described.

No. 29,996. Manufacture of Illuminating Gas. (*Fabrication du gaz d'éclairage.*)

The Animal Carbon Patent Gas Co. (assignee of Joseph E. Wren), Sydney, New South Wales, 17th October, 1888; 5 years.

Claim.—1st The manufacture of illuminating gas from animal fat alone by melting, and then feeding such melted material to a retort, sufficiently heated to convert such melted material into a gas, substantially as herein described and explained. 2nd. The contrivance for feeding the melted fat to the retort, such contrivance having a chamber in it to trap the lower end of the supply pipe, and thus pro-