

the disposal being such that the spring co-acts with the pressure from the main inlet chamber to force the valve forward towards the main outlet chamber, substantially as described. 31st. The combination, with the differential piston and the valve casing, of the openings, as 19, for connecting the pressure of the main inlet chamber to the positive piston of the valve device, substantially as described. 32nd. The combination, with the measuring mechanism and the main casing, of the valve device and the valve casing when mounted in a cylindrical bearing formed in the axis of the main casing, substantially as described. 33rd. The combination with the valve casing and valve therein, of a series of ports, radially disposed in a single transverse section of the casing, the number of the said ports corresponding to the proportional ratio of the meter, substantially as described. 34th. The combination with the valve casing and valve therein, of a series of ports radially disposed in a single transverse section of the casing, each of said ports being of circular contour, substantially as described. 35th. A main inlet chamber, a controlling chamber, a valve controlling a series of ports communicating with the inlet and the controlling chambers, and arranged to direct the total flow in streams of uniform character, substantially as described. 36th. A main inlet chamber, a controlling chamber, a valve, and a series of ports communicating with the inlet and the controlling chambers, and arranged to direct the total flow in equal streams converging towards the centre of the flow, substantially as described. 37th. A meter provided with a passage for the main stream and a passage for the measured stream, and means for throttling the main stream to equalize the resistance to the flow of the streams, substantially as described.

No. 41,841. Brick Machine. (*Machine à brique.*)

John Quincy Adams, Birmingham, Missouri, U.S.A., 6th February, 1893; 6 years.

Claim.—1st. In a brick machine, the combination of the upper and lower dies, compound double toggle for operating the upper dies, bars for operating one side of said toggle, substantially as and for the purpose set forth. 2nd. In a brick machine, the combination of an upper and lower die, double toggles secured to the upper die bars, pivoted to said toggles, levers 23, 24, one of said levers pivoted to said toggles, and means for connecting said lever with a power mechanism, substantially as described and for the purpose set forth. 3rd. In a brick machine, the combination of upper and lower dies, double toggles 26, bars 34, having one of their ends pivoted to a portion of said toggles and their opposite ends pivoted to a sliding bar, the lever 23, having one of its ends pivoted to said toggles, and its opposite end pivoted to an operating device, lever 24, having one of its ends pivoted to said operating device and its opposite end pivoted to the sliding bar to which the bars 34, are pivoted, substantially as described and for the purpose set forth. 4th. In a brick machine, the combination of an upper and lower die, double toggles 26, bars 34, levers 23, 24, connecting said toggle with a sliding support, a sliding support, rod 20, pivoted to the levers 23, 24, at one of its ends, and a crank shaft, in which the opposite end of said rod is journaled, substantially as described and for the purpose set forth. 5th. In a brick machine, the combination of upper and lower dies, toggles 26, bars 34, levers 23, 24, for operating said toggles, a shaft 53, at the upper end of said toggles, working in a slot 55, in the frame shaft 39, for supporting the lower dies, and rods 52, having a lower slotted end in which the shaft 39, operates, substantially as set forth. 6th. In a brick machine, the combination of upper and lower dies, a toggle for raising and lowering the upper die, a double sector having one of its sections connected with the shaft 39, the opposite section secured to the shaft 41, teeth on said sector, and means for rocking said sector, substantially as and for the purpose set forth. 7th. In a brick machine, the combination of an upper die operated by a double toggle, a lower die operated by a double sector, arms connecting said sector with a cam, and a roller on one of said arms, with which the cam engages, substantially as and for the purpose set forth. 8th. In a brick machine, the combination of upper and lower dies, the upper dies being worked by combined toggles, and the lower dies operated by a cam having a surface of variable pitch, said cam being connected by arms with a toothed sector for raising and lowering the lower dies, substantially as and for the purpose set forth.

No. 41,842. Machine for Sharpening Razors, Scissors, etc. (*Appareil pour aiguiser les rasoirs, les ciseaux, etc.*)

Charles Anthony Worden, Omaha, Nebraska, U.S.A., 6th February, 1893; 6 years.

Claim.—1st. In a machine for sharpening razors, the combination with a device for holding the razor, of two buttons of suitable abrading material, revolving at an angle to the axis of the blade of the razor, and travelling along opposite sides of said razor, and a device for revolving said buttons. 2nd. In a machine for sharpening razors, the combination, with a device for holding the razor, of buttons of suitable abrading material arranged at either side of said razor, revolving at an angle to the axis of the blade of the razor, means for adjusting the pressure of said buttons on said razor, a carriage mounted over said razor and adapted to carry said buttons along the sides thereof, and a device for revolving said buttons mounted upon said carriage, substantially as described. 3rd. In a

machine for sharpening razors, the combination with a base plate, of a holder for the razor mounted therein, a frame mounted on said base plate, a carriage adapted to move forwards and backwards on said frame, revolving buttons of suitable abrading material mounted on said carriage and adapted to bear against the sides of said razor, and means of revolving said buttons, substantially as described. 4th. In a machine for sharpening razors, the combination, with a base plate, of a holder for the razor mounted therein, a frame approximately parallel to the edge of the razor mounted on said base plate, a carriage mounted on said frame and adapted to move forwards and backwards thereon, spindles placed in journals carried by said carriage, buttons of suitable abrading material mounted on said spindles, and springs normally pressing said buttons against the sides of said razor, as and for the purposes described. 5th. In a machine for sharpening razors, the combination, with a base plate of a holder for the razor mounted therein, a frame having tracks approximately parallel to the edge of the razor mounted on said base plate, a carriage adapted to move forwards and backwards on said tracks, and having guide lugs adapted to engage in said grooves, spindles placed in journals carried by said carriage, buttons of suitable abrading material mounted on said spindles, and springs normally pressing said buttons against the sides of said razor, substantially as and for the purposes described. 6th. In a machine for sharpening razors, the combination, with a base plate of a holder for the razor mounted therein, a frame having tracks and guide grooves approximately parallel to the edge of the razor mounted on said base plate, a carriage adapted to move forwards and backwards on said tracks, and having guide lugs adapted to engage in said grooves, spindles placed in journals carried by said carriage, buttons of suitable abrading material mounted on said spindles, and springs normally pressing said buttons against the sides of said razor, substantially as and for the purposes described. 7th. In a machine of the character described, a clamp for the razor, consisting of two jaws lined with rubber, felt or other soft and elastic material, the said jaws being pivoted in the said base plate, and the one jaw having a cam face, and the second jaw a lever arm adapted to engage said cam face, and a clamp screw bearing against said jaw, substantially as and for the purposes described. 8th. In a machine of the character described, the combination, with a base plate, and a holder for the razor mounted therein, of a frame mounted on said base plate, a travelling carriage carrying revolving buttons for sharpening the razor mounted on said frame, and a sponge with a spring support therefor mounted in the wake of said buttons near the end of said razor, substantially as described. 9th. In a machine of the character described, the combination, with a device for holding the razor in a fixed position, of a carriage adapted to move backwards and forwards in a direction approximately parallel to the edge of the razor, a spindle mounted in journals carried by said carriage, a conical button of suitable abrading material carried by said spindle, a device for revolving said spindle, a spring normally pressing said button against said razor, and a screw adjusting the tension of said spring, substantially as and for the purposes described. 10th. In a machine of the character described, the combination, with a base plate and holder for the razor secured thereto, of a track mounted over said holder, a carriage moving along said track, spindles mounted in said carriage, buttons of suitable abrading material mounted on said spindles, pinions also mounted on said spindle, and a combined fly and gear wheel mounted in said carriage and moving therewith, with means for turning the said wheel, substantially as and for the purposes described. 11th. In a machine of the character described, the combination with a base plate and a holder for the razor secured thereto, of a track mounted over said holder, a rack parallel to said track, a carriage moving along said track, spindles mounted in said carriage, buttons of suitable abrading material mounted on said spindles, pinions also mounted on said spindles, a shaft set across said carriage and moving therewith, rollers on said shaft travelling on said track, a pinion on said shaft engaging in said rack, and a combined fly and gear wheel mounted on said carriage and adapted to turn in one direction only, substantially as and for the purposes described. 12th. In a machine of the character described, the combination with a base plate and a holder for the razor secured thereto, of a track mounted on said base plate and approximately parallel with the edge of said razor, a rack parallel to said track, a carriage moving along said track, spindles mounted in said carriage at an angle to the direction of motion thereof, conical buttons made of suitable abrading material and pinions both mounted on said spindles, a shaft set across said carriage and moving therewith, rollers on said shaft moving on said tracks, a pinion on said shaft engaging in said rack, a double bevelled gear wheel loosely mounted on said shaft and engaging said pinions, a ratchet and pawl connecting said shaft with said gear wheel, and means for turning said wheel, substantially as described. 13th. In a machine of the character described, the combination with the travelling carriage and the button spindles, buttons, and pinions mounted thereon, of the shaft set transversely to the carriage with a handle loosely mounted thereon for moving said shaft and said carriage backwards and forwards, of the combined fly and gear wheel loosely mounted on said shaft, and the ratchet and pawl connecting said wheel to said shaft, substantially as and for the purpose described. 14th. In a machine of the character described, the combination with the travelling carriage E, of the side pieces E', carrying the button spindles, and having slots therein and hand lugs as shown, of the studs secured to the carriage and engaging in the forward slot, and the clamp