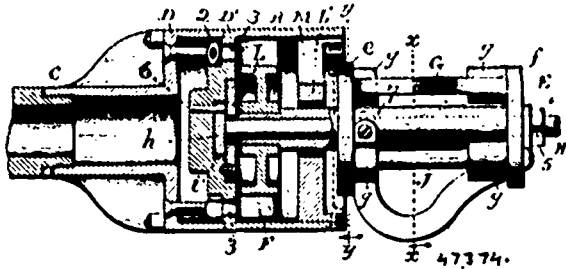


the casing and driven by the propeller, substantially as specified. 2nd. A flue cleaner comprising a cylindrical casing open at the front and closed at the rear end by a hollow head, a propeller located within the casing and adapted to be driven by jets escaping



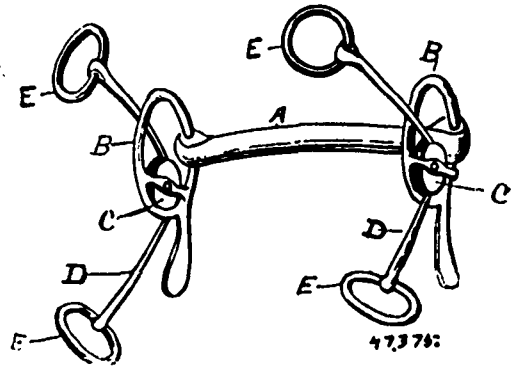
from the said chamber, and a scraper exterior to the casing and having connection with and operated by the said propeller, substantially as described. 3rd. A flue cleaner comprising a casing open at the front and closed at the rear end by a hollow head having oblique outlets in the inner wall, a propeller located within the casing, and a scraper exterior to the casing and operated by the propeller, substantially as set forth. 4th. A flue cleaner comprising a casing open at the front and closed at the rear end by a hollow head having oblique outlets in the inner wall, a propeller located within the casing, and having its buckets standing at opposite angle to the oblique outlets, and a scraper exterior to the casing and operated by the propeller, substantially as set forth. 5th. A flue cleaner comprising a casing open at the front and closed at the rear end by a hollow head having oblique and straight outlets in its inner wall, a propeller located within the casing and driven by the jets issuing from the oblique outlets, and a scraper exterior to the casing and operated by the propeller, the jets issuing from the straight outlets being designed to create a blast in the tube to remove loose particles, substantially as specified. 6th. A flue cleaner comprising a casing open at the front and closed at the rear end by a hollow head having outlets in its inner wall, a spindle connected with the said head by a universal joint, a hollow shaft mounted on the spindle, a propeller attached to the hollow shaft, and a series of scraping blades tangentially disposed with respect to the said shaft and pivotally supported at their inner edges, substantially as set forth. 7th. A flue cleaner comprising a casing open at the front and closed at the rear end by a hollow head having outlets in its inner wall, a spindle connected with the said head by a universal joint, a hollow shaft mounted on the spindle, a propeller and a scraper carried by said hollow shaft, substantially as set forth. 8th. A flue cleaner comprising a casing open at the front and closed at the rear end by a hollow head having outlets in its inner wall, a spindle connected with the said head by a universal joint, a hollow shaft mounted on the spindle, a propeller attached to the hollow shaft, and a series of scraping blades disposed about the said shaft and adapted to have an outward movement, substantially as and for the purpose described. 9th. In a flue cleaner, the combination with a rotary shaft having supports located a short distance apart thereon, of scraper blades tangentially disposed with respect to the said shaft and pivotally connected at their inner edges with the said supports, substantially as specified. 10th. In a flue cleaner, the combination with a rotary shaft, of blades tangentially disposed with respect to the said shaft, and having a hinged or pivotal connection therewith, and stops to limit the swinging movement of the said blades, substantially as described. 11th. In a flue cleaner, the combination with a rotary shaft, of blades tangentially disposed with respect to the said shaft, and having a hinge or pivotal connection therewith, a stop integral with the blade to limit its movement in one direction, and an adjustable stop supported on a lug projecting from the said blade, substantially as specified.

No. 47,375. Bridle Bit. (*Mors de bride.*)

Irvin Z. Merriam, Whitewater, Wisconsin, U.S.A., 3rd November, 1894; 6 years.

Claim.—1st. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings and an independent link having a stop at either end, said link adapted to pass through the loop or pulley, and adapted to be attached at one end to the check-rein and at the other end to the driving reins, substantially as set forth. 2nd. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings, and an independent flexible link having a stop at either end, said link adapted to pass through the loop or pulley, and adapted to be attached at one end to the check-rein and at the other end to the driving reins, substantially as and for the purposes set forth. 3rd. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings, and an independent metallic link, having a stop at either end, said link adapted to pass through the loop or pulley, and adapted to be attached at one end to the check-rein and at the other end to the driving reins, substantially as and for the purposes set forth. 4th. A driving bit comprising a mouth bar, cheek rings secured thereto, a loop or pulley attached to the cheek rings, and an independent

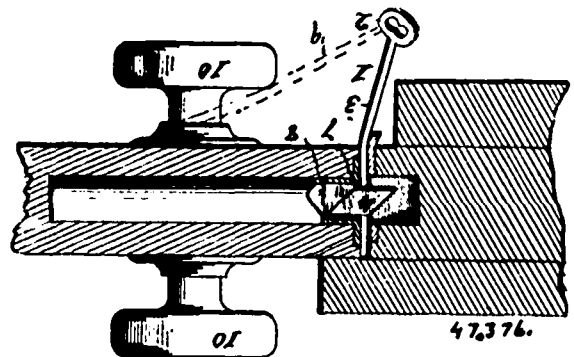
flexible curved metallic link having a stop at either end, said link adapted to pass through the loop or pulley and adapted to be attached at one end to the check-rein and at the other to the driving reins, substantially as and for the purposes set forth.



substantially as and for the purposes set forth. 5th. A driving bit comprising a mouth bar and cheek ring, having loops extending at an angle to the cheek rings, the passage through said links being vertical and independent links having a stop at either end, said links adapted to pass through the loops and to be attached at one end to the check-rein and at the other ends to the driving reins, substantially as described.

No. 47,376. Lock and Key Combined.

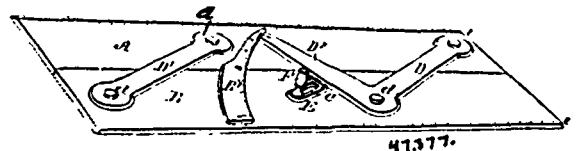
(*Serrure et clef combinées.*)



Amos Bassette Buckland, Rochester, New York, U.S.A., 3rd November, 1894; 6 years.

Claim.—The combination with a door provided with a latch bolt opening, and a latch bolt adapted to operate therein, and having an inclined face 8, and a door jamb provided with a triangular shaped recess at a point to adapt said recess to lie opposite the opening in the door when the latter is closed, of a lock or key 1, comprising the shank 3 bent laterally at a point beyond the face of the door as described, and a diamond or lozenge shaped head or bit 4, the face 5 whereof is adapted to lie against the face 6 or notch in the door jamb, and the face 7 against the inclined face 8 of the latch bolt, said head or bit of the device 1 being arranged to one side of the line of the shank, for the purpose specified.

No. 47,377. Parallel Rule. (*Règle parallèle.*)



Charles Henry Beeler, jr., Philadelphia, Pennsylvania U.S.A., 3rd November, 1894; 6 years.

Claim.—1st. The combination in a parallel rule, of the two members, links connecting the two members, one link having an arm, a segment on one of said members projecting over the other member and graduated, substantially as described. 2nd. The combination in a parallel rule, of the two members A and B, links connecting the two members together, an arm on one of said links, a segment fixed on one member and overhanging the other, with an adjustable stop for limiting the movement of the arms, substantially as described. 3rd. The combination in a parallel rule, of the two members A and B, links D, D', pivots d for said links, an arm D² extending from the base of the link D at an angle to said link and having a bevelled end, a graduated segment secured to or forming