

h above and below said arm, a pin p pivotally connecting the upper end of the pitman with said yoke, and means, substantially as described, for moving the yoke longitudinally upon the lever, as and for the purpose set forth. 2nd. In a windmill, the combination with the frame having an upright U, a lever H, pivoted between its ends to said upright, and the pump-rod H<sup>1</sup>, connected to the inner arm of said lever, of the wind-wheel, the crank-shaft M, rotated thereby, the pitman rod P, connected at one end to the crank of said shaft, a yoke X<sup>1</sup>, embracing the outer arm of said lever and having boxes h, h above and below said arm, a pin p, pivotally connecting the upper end of the pitman with said yoke, the supplemental vane V pivoted in said frame at an angle to be struck by the wind, and the connecting rod I, between said vane and yoke, whereby the force of the wind will cause the automatic adjustment of the latter longitudinally upon the lever, as and for the purpose set forth. 3rd. In a windmill, the combination, with the L-shaped framework F, pivotally mounted upon the support S, of the upright rod k, mounted in said frame, the bracket K pivoted on said rod, the tail A carried by said bracket, a chain C connecting said bracket with the front arm of the frame, a stud D on said bracket, a cord O leading from said stud over pulleys on the frame and down the standard S, and the wheel and devices operated thereby, mounted upon said frame, as and for the purpose set forth. 4th. In a windmill, the combination, with the L-shaped framework F, pivotally mounted upon a support S, the wheel, and the devices operated thereby, all supported upon said frame, of the upright rod k, in the rear arm of said frame, the tail A, the bracket K supporting said tail, said bracket being pivoted upon said rod and extending forward of the same, as at K<sup>1</sup>, an L-shaped lever Q pivoted in the front arm of said frame, a chain c<sup>1</sup> connecting the upper arm of said lever with said extension K<sup>1</sup>, and an adjustable weight Z upon the other arm of said lever, as and for the purpose set forth. 5th. In a windmill, the combination, with the L-shaped framework F, and the wind-wheel and devices operated thereby, all supported upon said frame, of the tail A, the bracket K supporting said tail, said bracket being pivoted to the rear arm of said frame and extending forward of its pivot, as at K<sup>1</sup>, a stud D on said bracket, a cord O leading from said stud over wheels on the frame to the ground, a lever Q pivoted to said frame, a chain c<sup>1</sup> connecting said lever with said extension K<sup>1</sup>, and an adjustable weight Z on said lever, all as hereinbefore set forth.

#### No. 35,637. Holder for Cuffs.

(*Bouton de manchette.*)

William Thomas Wood, Nashville, Tennessee, U.S.A., 18th December, 1890; 5 years.

*Claim.*—1st. A cuff-holder, constructed of a single piece of metal doubled and provided with jaws 2 and 3, having their ends 5 and 6 arranged at an angle to the body of the holder, the end of the jaw 2 being bent inward toward the jaw 3, and crimped and forming a curved recess 7, and the jaw 3, being provided with a curved or rounded end, and being adapted to be sprung laterally to engage the curved recess 7, substantially as described. 2nd. A cuff-holder, constructed of a single piece of metal, doubled and provided with jaws 2 and 3, having their ends arranged at an angle, the jaw 2, having the projection or loop 8, and having its end bent inward toward the jaw 3, and provided with the curved recess 7 and the jaw 3, having its end rounded or curved at the edge and adapted to be sprung aside to engage the curved recess, substantially as described.

#### No. 35,638. Attachment for Devices for Drawing Water. (*Appareil pour puiser l'eau.*)

George F. Beebe, Hornellsville, New York, U.S.A., 18th December, 1890; 5 years.

*Claim.*—1st. An attachment provided with a tubular casing adapted for connection at its extremities with the tubing of devices for drawing water, a pump cylinder formed within said casing, a plunger provided with a spring valve and placed in said cylinder, a valve-seat fixed in said casing below said cylinder, and provided with vertical guides, a valve provided with a stem and placed loosely in said seat, said valve being provided with a retaining spring, filtering material placed within said casing below said valve, and devices adapted to prevent said filtering material clogging said valve and the water passage at the lower end of the casing, substantially as set forth and described. 2nd. The combination, with a tubular casing adapted for connection with pump tubing, of a plunger provided with an annular plate having a perforated bar extending across its centre, a circular valve-seat surrounding the central opening in said plate, and provided with vertical guides, a valve loosely placed in said seat, said valve being provided with a head having a bearing surface of elastic material, and a stem extending downward through a guide formed of said perforated bar, and provided with a spring placed on said stem, substantially as set forth and described. 3rd. The combination with a tubular casing adapted for connection at its extremities with the tubing, of devices for drawing water, of a valve-seat fixed in said casing, a spring valve provided with a stem and seating in said seat with the stem extending downward through a guide, suitable filtering material in said casing below said valve, and devices placed in the casing adapted to prevent the filtering material clogging said valve and the water passage, substantially as and for the purposes described. 4th. The combination, with the casing, of an annular plate provided with a perforated bar extending across its centre, a circular valve-seat surrounding the central opening in said plate, a series of vertical guides about said valve-seat, a valve loosely placed in said seat, said valve being provided with a head having a layer of rubber for its bearing surface, and a stem extending downward through a guide formed of said perforated bar, and provided with a spiral spring adapted to hold the valve in its seat, substantially as set forth and described. 5th. The combination with the casing formed of parts A, and B, of an annular plate f, provided with outer flanges c, and packing e, a circular valve-seat h, with guides i, surrounding said seat, and perforated bar d<sup>1</sup>, a valve

E<sup>1</sup>, provided with a stem which extends downward through said bar d<sup>1</sup>, and a retaining spring on said stem, a filling of filtering material in casing B, sponge being placed above and below said filtering material, and springs g, and r, for keeping the sponge in place, substantially as and for the purposes described.

#### No. 35,639. Electric Gas Lighter and Extinguisher. (*Allumoir et éteignoir électriques pour gaz.*)

George A. Sanders, and Samuel J. Willett, (assignees of Nelson Newman), all of Springfield, Illinois, U.S.A., 19th December, 1890; 5 years.

*Claim.*—1st. The combination of the time mechanism having the moving tappets, the gas valve having the tappet arms, and the electric sparking apparatus, having the operating lever or arm also adapted to be operated by the tappets, substantially as described. 2nd. The time mechanism having the moving tappets, in combination, with the electric sparking apparatus having the contacting arm e, and the lever or arm f, to operate said contacting arm, and arranged in the path of the tappets, substantially as described. 3rd. The time mechanism, having the revolving disk provided with the concentric series, of openings a, b, d, the adjustable tappet pins a<sup>1</sup>, b<sup>1</sup>, d<sup>1</sup>, in said openings respectively, the gas valve having the tappet arms in the paths of the tappets a<sup>1</sup>, b<sup>1</sup>, and the electric spark producing apparatus, having the lever or arm in the path of the tappet d<sup>1</sup>, all in combination, substantially as described. 4th. The time mechanism, having the revolving disk provided with the tappets arranged at different distances from its centre, in combination with the gas valve having the tappet arms extending in opposite directions and arranged in the paths of the respective tappets, whereby the valve will be automatically opened and closed, and the electric spark producing apparatus operated by the time mechanism, substantially as described. 5th. The electric spark producing apparatus, having the vibrating contact arms, forming electrodes, adapted to alternately meet and separate, and the devices, substantially as set forth, to set them in motion. 6th. The combination of the time mechanism having the moving tappets, the valve having the levers or arms, and the vibrating contact arms, having the lever to engage the tappets, and the pendulum to keep said arms in motion, substantially as described. 7th. The combination of the pivoted contacting arm e, having the lever arm f, the pivoted contacting arm O, having the pendulum, the rod connecting said pendulum with said arm e, and the moving tappet to operate the arm or lever f, substantially as described.

#### No. 35,640. Feeder for Band Saws.

(*Alimentateur pour scies sans fin.*)

Abram B. Springstead and William W. Sigler, both of Kalamazoo, Michigan, U.S.A., 19th December, 1890; 5 years.

*Claim.*—1st. In a work feeder for band saws, the combination, with the base-clamp, of a horizontal bar which slides in the grooved upper portion p, of said clamp, a frame or work carrier G, which is pivoted to and swings horizontally on the outer end of said bar, and horizontal arms which slide in said work carrier and are provided with spurs for engaging the stuff to be sawed, all substantially as shown and described, to operate as specified. 2nd. In a work feeder for band saws, the combination, with the saw table, of a detachable clamp A, a transverse bar E, adjustable on the clamp over the table, a carrier frame G, fastened to the bar E, and radially adjustable arms on the said carrier frame having stops on their outer ends, substantially as described. 3rd. In a work feeder for band saws, the combination, with the saw table, of a clamp A, a transverse bar E, adjustable on the clamp A, a segmental frame G, pivoted to the bar E, and provided with radial dove-tail slots and holes and radially adjustable stop arms J, J<sup>1</sup>, and sealed measuring arms I, I<sup>1</sup>, adjustable in said holes and slots, substantially as described.

#### No. 35,641. Cleaner for Boiler Tubes.

(*Nettoyeur de tubes de chaudières.*)

Harmon Gilmore and Arthur J. Aker, both of St. Williams, Ontario, Canada, 19th December, 1890; 5 years.

*Claim.*—A boiler tube cleaner, consisting of a piece of sheet steel cut to shape and bent to form a hollow conical head A, having two free overlapping edges from base to apex, and a handle B, projecting from the smaller end, of the conical head, and secured thereto to admit of the larger end being contracted and expanded, said end preserving a circular continuity during such contraction and expansion, as set forth.

#### No. 35,642. Dress Stay. (*Busc de corset.*)

Augusta Dacus, San Antonio, Texas, U.S.A., 20th December, 1890; 5 years.

*Claim.*—The herein described garment stay, the same comprising a resilient body, a fabric cover secured around the same, and flexible wire fasteners whose bodies stand between the stay-body, and the inner face of the cover and whose pointed ends extend outwardly through the resilient body and through the outer face of the cover, the whole being adapted for use substantially as set forth.

#### No. 35,643. Vehicle Wrench. (*Clé de voiture.*)

John A. Miller, St. Louis, Missouri, U.S.A., 20th December, 1890; 5 years.

*Claim.*—1st. As an improved article of manufacture, a permanent or detachable nut socket for wrenches, provided with sections of different dimensions, one of which is located adjacently below the other, as and for the purposes specified. 2nd. As an improved