the main. The device also protects the bag against being torn and damaged by contact with the rough and sharp edges of the opening in the main at which it is inserted or withdrawn.

LOCK.—Jacob C. Hollman, Carbon Black, Pa. A lock which may be readily and conveniently mortised into any door, without appreciably detracting from the strength of the door, is provided by this invention. The bolt and the latch, according to this improvement, are in separate cylindrical compartments or casings, to the outer end of which a face plate is secured, the upper cylinder being preferably the latch cylinder. In placing the lock it is only necessary to make spaced bearings for the cylindrical casings and a countersink for the face plate, in addition to the openings for the knob spindle and key.

NON-REFILLABLE BOTTLE.—William W. Doty and James J. Donnellan, New York City. This bottle has a stopper with an annular channel, the center piece being connected by wings with the outer portion of the stopper, while a cap has in its under side a screw entering the center piece, and a rod connected with the screw and extending through the center piece has an enlarged portion at its lower end on which a valve is guided. In manufacturing the bottle the stopper, with the cap and valve, are made separate from the neck, in which the stopper is cemented after the bottle is filled. The construction effectively prevents refilling a bottle after it has once been emptied.

CLOTHES LINE CONVEYER.—Alexander G. Molteni, Hoboken, N. J. This invention relates to sheaves or pulleys to be attached to a window frame, etc., by which a clothes line may be drawn in and out, to hang out or take in the clothes, and provides a pulley frame which may be clamped or secured at any desired angle, and which can be cheaply made. Bridge pieces prevent the line from slipping off the sheave or pulley, and the device may be used either side up, bringing the handle on the right or the left hand side.

SPONGE GATHERER.—John Peacon, Key West, Fla. A novel grappling device has been devised by this inventor, having a metal frame adapted to rest on the sea bottom, a cross bar with eyes on the top of the frame, two bails hinged to the frame and having inwardly projecting tines, while ropes passing through the eyes of the cross bar are attached to the bails. The device is designed to facilitate the gathering of sponges in deep water, where the ordinary pole with grappling hooks cannot be used. It is operated by two ropes, the slacking of one of which, when the grappling device is on the bottom, allows the bails with their tines to engage the sponge, when the grapple with its sponge may be drawn up by the other rope.

ROPE OR CLOTHES LINE TIE.—Louis Keller, Brooklyn, N. Y. To facilitate fastening the loose end of a rope, cable or clothes line in place, or automatically releasing it when desired, this inventor has devised a casing having means of attaching one end of a rope and a guide for the other or loose end, while a horn pivoted on the casing is adapted to receive and hold the loop formed by the loose end of the rope. There is a locking and releasing device for the horn to hold it in a locked position on the casing or release it to throw off the loop.

CORSET COVER. — Max Galland, Wilkesbarre, Pa. This cover has a back with forwardly extending side flaps arranged to be fastened together at the front to form a low cut waist, while a loose front has a shoulder connection with the back, and forms with the latter arm holes, the front being held in place by the side flaps. The cover readily adjusts itself to the form of the wearer's body or corset, insuring a perfect fitting, and at the same time giving entire freedom to the arms of the wearer.

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Notes & Queries

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(7159) B. G. M. asks: 1. How much current is required in nickel plating through 30 gallon solution with anodes hung 8 inches from articles to be plated? A. It depends on the area which is to receive the deposit. On copper allow 0·4 to 0·8 ampere per 15½ square inches. For copper on zinc use 1·3 to 1·5 amperes. The first deposit should be given with a strong current; then follow with a lighter current. 2. In nickel-plating cast iron what is used to fill the blow holes to make an even surface to plate on? A. Lead may be used. It is a good plan to have the article galvanized before nickeling and to give that a thin copper coating. The zinc will fill up small holes.

(7160) J. W. W. writes: What is the greatest amount of electro-motive force that has ever been successfully used in a telephone? A. In a Bell telephone the E.M.F. may be quite high momentarily, but there is no record of it that we know of. In condenser telephones it may be very high.

Business and Personal.

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Reeling machine, W. H. Haslam.... 582,059
Refrigerator or cooler, H. M. Burt.... 582,037
Rock drill, W. Wood.... 582,109
Rocker, spring, M. W. Neuens.... 581,762
Rod coupling, T. C. Munz.... 581,917
Rolling mill, T. L. James.... 581,993
Rolling mill catcher's table, S. V. Huber.... 581,935
Rolling mill for rolling out file blanks, etc., W. Gross.... 581,820
Roof leader, etc., R. C. Tucker.... 581,893
Rubber overshoe, J. F. O'Brien.... 582,082
Sad iron stand and heater, G. J. Raiser.... 581,941
Saddletree, harness, R. Miller.... 581,747
Salicin compound and making same, L. Sell.... 581,833
Sandpapering wheel, G. Stickley.... 581,787
Sash lock, window, F. Severio.... 581,778
Sawmill set works attachment, Downey & Burns. 582,047
Sawing machine, portable, L. J. Voisard.... 581,796
Screen. See Window screen.
Scythe snath fastener, M. Smith.... 581,923
Seat. See Vehicle jump seat.
Sewer trap, T. F. Macdonald.... 581,744
Sewing looped fabrics, machine for, J. H. Musgrove.... 581,758
Sewing machine, T. A. Macaulay.... 581,828
Sewing machine, carpet, H. Eschweiler.... 582,118
Sewing machine, sole, L. Goddu.... 581,817, 581,819
Sewing machine, two-needle, E. H. Harris.... 581,822
Shearing machine, animal, S. F. Allen.... 582,031
Shelf bracket, T. Corscaden.... 581,979
Shelf bracket, sheet metal, T. Corscaden.... 581,980
Shell and fuse, high explosive, H. P. Hurst.... 582,063
Ships' boats, apparatus for raising or lowering, B. Leslie.... 582,069
Shirt, W. Michelfelder.... 581,746
Shirt, E. Oppenheim.... 582,145
Shoe, R. C. Secker.... 581,777
Shoe, J. Walden.... 581,927
Shutter fastener and bower, combined, Sharp & Congezer.... 581,871
Sifter, E. A. Shaw.... 581,872
Signal wire carrier, J. Chalmers, Jr.... 581,932
Signaling circuit apparatus and system, selective, G. W. Whittemore, et al.... 582,107
Silver coatings, depositing metals on, C. Schwabe. 581,775
Skein silk, yarn, thread or similar strands, holder for, Eichhorn & Evans.... 581,983
Skirt adjuster, bicycle, H. B. Rennie.... 582,091
Skirt elevator, J. L. Gourley.... 581,884
Skirt supporter, M. Gair.... 581,709
Sled attachment for wagons, P. Henseler.... 581,989
Smokeless economizer furnace, H. A. Wheeler.... 581,970
Soap article, L. S. Samuel.... 581,920
Sole leveling or beating out machine, J. J. Heys.... 581,825
Spanner for cyclists, etc., adjustable, J. Harrison 581,823
Spindle for slubbing, roving or similar machines, A. Kirschner.... 581,913
Spinning and twisting frame, Martin & Tolman.... 581,745
Spoke socket, H. A. Kendall.... 581,736
Sprayer or sprinkler, regulating, R. P. White.... 581,874
Sprinkler. See Lawn sprinkler. Lawn or garden sprinkler.
Stand. See Display stand. Sad iron stand. Tripod stand.
Station indicator, B. E. Byrd.... 582,038
Steam boiler, W. H. Drake (reissue).... 11,599
Steam boiler, H. L. Freeman.... 582,121
Steam boiler, S. E. Light.... 582,019
Steamer and temperer, wheat, H. D. Pratt.... 582,087
Steering gear, vessel, H. A. Spiller.... 582,104
Step, extension, S. R. Hamilton.... 582,056
Stethoscope, W. H. Wigmore.... 581,929
Stone sawing machine, Wincqz & Machepy.... 581,800
Stone, templet and clamp for forming and dressing, D. Mann.... 582,072
Stopper. See Bottle stopper.
Storage apparatus, C. G. Armstrong.... 581,803
Stove, C. M. Allen.... 581,974
Suction box, M. D. Keeney.... 581,733
Switch. See Electric switch. Electric circuit switch. Railway switch.
Table. See Folding table. Ironing table.
Table slide, extension, H. J. Durgin.... 581,956
Tack driver, A. E. Kuhns.... 582,142
Tack puller, G. L. Donovan.... 581,982
Telegraphic apparatus, C. F. Eaton, Jr.... 582,157
Telegraphy, C. F. Eaton, Jr.... 581,815
Thermometer, recording, Comey & Parker.... 582,043
Thread cutter, L. C. Hathaway.... 581,720
Thread cutter and holder, combination, A. Holm 581,862

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