

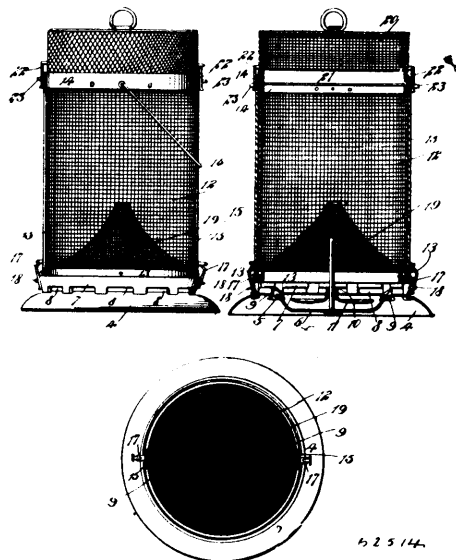
combination with means for rotating a projectile, and mechanism for winding and securing twine upon the same, a carriage operating said mechanism, a thread cutting tool movable on said carriage, a spring engaging said tool, a lever engaging the same, and an adjustable stop to engage said lever, substantially as described. 16th. In combination with means for rotating a projectile and securing the ends of twine thereto, and means for severing said twine, a twine feeding beak movably mounted on a carriage and moving oppositely to said carriage during the first revolution of the projectile, substantially as described. 17th. In combination with means for rotating a projectile and securing the ends of twine thereto, and means for severing said twine, a reciprocating carriage, a twine feeding beak pivotally mounted on said carriage, and a spring to turn said beak on its pivot during the first revolution of the projectile, whereby the twine is laid in a groove around the projectile, substantially as described. 18th. In combination with a longitudinally movable spindle having a cupped and corrugated end, and a rotative socket, a carriage, a twine feeding bank pivotally mounted on said carriage, a thread cutting tool movable on said carriage, a spring and lever to move said tool, a spring actuated hammer having a cupped end, a lug, a shoulder and a stop, a pivoted dog to engage said shoulder, a hook on the carriage engaging the lug and having a projection engaging the dog, a second spring actuated hammer having a cutting tool, a chisel end, a lug, and a stop, and a triangular plate on the carriage engaging said lug, substantially as described. 19th. In combination with mechanism for winding twine upon a projectile, a guide arm having a divided and pivoted end, a spring pressing the parts of said end against the opposite sides of the same, and a hook on said arm to retain the twine, substantially as described. 20th. In combination with means for rotating a projectile, and securing the ends of the twine thereto and severing the same, a movable feeding beak, a spool, oiling mechanism, and a divided guide having one side pivoted, a spring pressing the pivoted side against the twine, and a hook on the fixed side to retain the twine, substantially as described. 21st. In combination with a reciprocating carriage, a half-nut on said carriage, a rotative shaft having a thread engaging said nut, a spring to move said carriage, a pivoted arm engaging said carriage and disengaging the nut from the thread, and means for periodically engaging said arm with the carriage, substantially as described. 22nd. In combination with a reciprocating carriage having a half-nut, a spring to move said carriage one way, a screw-threaded shaft to move said carriage the other way, an arm to lift the carriage out of engagement with the shaft and to form a track for the carriage to run back on, a lug on said arm, and a reciprocating rod having an inclined flange attached to engage said lug, substantially as described. 23rd. In combination with a reciprocating carriage and a spring and screw-threaded shaft to oppositely move the same, a pivoted arm to lift the carriage out of engagement with the shaft, a lug on said arm, a latch having notches to engage the arm and hold the same, a reciprocating rod, a plate pivoted in a slot in said rod and having lugs to limit the movement of said slot, an inclined flange on said plate to engage the lug on the arm, and a spring engaging said plate, substantially as described. 24th. In combination with a reciprocating carriage, a half-nut, a spring and a screw-threaded shaft to move said carriage, a spring to hold the nut in engagement with the shaft, a pivoted arm to disengage the same and provide a track for the carriers, a notched latch engaging the movable end of the arm and engaging and released by the carriage, a lug on the arm, a reciprocating rod having a slot, a plate pivoted in the slot and having lugs to limit the movement, a spring engaging said plate and an inclined flange on the plate engaging the lug on the arm when moved in one direction, and running over the lug when moved in the other direction, substantially as described. 25th. In combination with a reciprocating carriage and a reciprocating spindle, a driving-shaft connected to the spindle, a crank-pin on said shaft, a notched wheel engaged by said pin, a stud on said wheel, a bell-crank lever operated by said stud and connected to said spindle to reciprocate the same, a rod pivoted at one end to said lever, an inclined flange attached to said rod, an arm moved by said flange and engaging the carriage, a latch to hold said arm and released by the carriage, a counter-shaft geared to the driving-shaft and having screw-threads engaging a half-nut on the carriage, and a spring to return the carriage, substantially as described. 26th. The combination of an inclined tube having a lateral extension, a longitudinally movable spindle traversing said extension, a driving-shaft connected to said spindle, a bell-crank lever attached to the spindle, a wheel having a stud to operate said lever and rotated by the driving-shaft, a reciprocating carriage, a spring to move said carriage, a screw-threaded shaft engaging a half-nut on said carriage and geared to the driving-shaft, a rod connected to the bell-crank lever and having attached flange and a pivoted arm operated by said flange to raise the carriage out of engagement with the shaft, a twine feeding beak on the carriage, spring actuated hammers to secure and sever the twine, and means for operating said hammers connected to said carriage, substantially as described.

No. 62,514. Fly Trap. (*Gobe-mouche.*)

William Engelbrecht, Ash Grove, Illinois, U.S.A., 2nd February, 1899; 6 years. (Filed 21st November, 1898.)

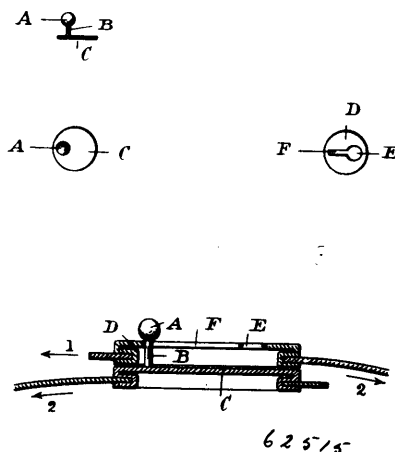
Claim.—1st. A fly trap, having a base with a central orifice therein, a pan seated in said orifice and adapted to contain the bait, a

post standing centrally on the pan, a float movable vertically on the post and adapted to be sustained by the liquid bait within the pan,



an annulus bearing on the base and surrounding the pan and having orifices for the admission of the flies, a cage seated on the annulus, and a funnel within the cage, the funnel overhanging the bait pan and opening into the cage. 2nd. A fly trap, having a base with an orifice in the center thereof, a bait pan seated in the orifice, a post standing on the bait pan, a float having vertical movement on the post, an annulus seated on the base, and a cage bearing on the annulus and located over the bait pan. 3rd. A fly trap, having a receptacle for liquid bait, a post standing in said receptacle, and a float movable vertically on the post and capable of being sustained on the bait in said receptacle. 4th. A fly trap, having a base provided with a receptacle for liquid bait, a cage supported on the base, and a float adapted to be sustained on said liquid bait to afford a resting place for the flies.

No. 62,515. Garment Fastener. (*Attache de retient.*)



Eugène Berthoin, Rue Lesdiguières, Grenoble, Isère France, 2nd February, 1899; 6 years. (Filed 17th January, 1899.)

Claim.—1st. A clasp stud or button operating by tension and comprising a head the stem of which is mounted eccentrically upon its foot or base. 2nd. A clasp stud or button operating by tension and comprising a part provided with an aperture or recess and terminating in a groove or slideway. 3rd. A clasp stud or button, the means of fastening which is supplied by the combination of one part comprising the head and stem of the stud, with another part having a recess and a slideway, all substantially as described and illustrated in the drawings.

No. 62,516. Signalling Method and Apparatus. (*Méthode et appareil de signalement.*)

Robert Frederick Foster, New York City, New York, U.S.A., 2nd February, 1899; 6 years. (Filed 17th October, 1898.)

Claim.—1st. The method substantially as hereinbefore set forth of signalling to indicate the direction from and to which a signal is sent,