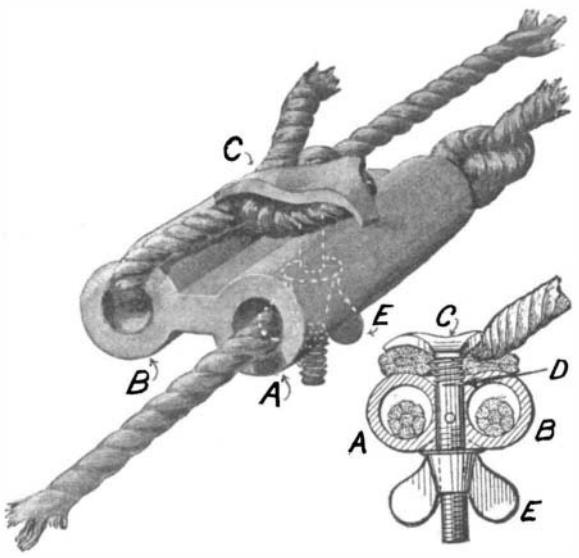
Patent Department

SIMPLE CLAMP FOR CLOTHES LINES.

A very simple clamp for clothes lines is illustrated in the accompanying engraving. The device can be readily manipulated to fasten together the two ends

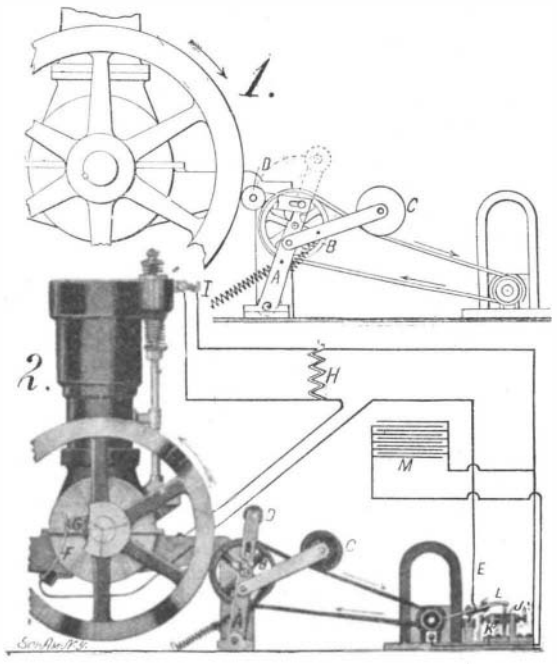


SIMPLE CLAMP FOR CLOTHES LINES.

of a clothes line. The construction of the clamp is such, that when applied to a line there will be little danger of its slipping from its set position, and it may be readily tightened or loosened, as occasion may demand. The clamp consists of two parallel barrels *A* and *B* connected by a web. These barrels are open at both ends. In the center of the web is an opening adapted to receive a bolt *C*. The bolt hole is provided with a keyway, in which a pin fitted in the bolt is received. This prevents the bolt from rotating with respect of the web, but permits it to slide axially therein. The bolt head is formed with wings preferably three in number, which are bent downward. A spring *B* is coiled about the shank of the bolt beneath the head, and serves to space the latter above the web. Threaded on to the bolt and bearing against the under side of the web is a wing nut *E*. The method of applying the clamp is very simple. One end of the rope or clothes line is passed through one of the barrels, and knotted to prevent it from slipping out. The opposite end of the line is then passed through the other barrel, and the end is wound around the bolt under the concave face of the head. A few turns of the wing nut *E* then serve to clamp the head *C* on the rope, and hold it in set position. Mr. William Mullin, of 3106 Third Avenue, New York, N. Y., is the inventor of this improved clothes line clamp.

GAS ENGINE IGNITER.

A new igniting apparatus has recently been invented for use in internal combustion engines, which is calculated to do away with the vibrator on the spark coil of the conventional jump-spark system of ignition. The coil is supplied with current from a magneto driven frictionally by the flywheel of the gas engine. On the engine base close to the flywheel an arm *A* is pivoted. Mounted on this arm is a pulley B, which is belted to the armature shaft of the magneto. A spring-pressed pulley *C* serves to keep the belt taut. A third pulley *D* is mounted on an arm pivoted to the arm *A*. When this pulley is swung downward against the flywheel



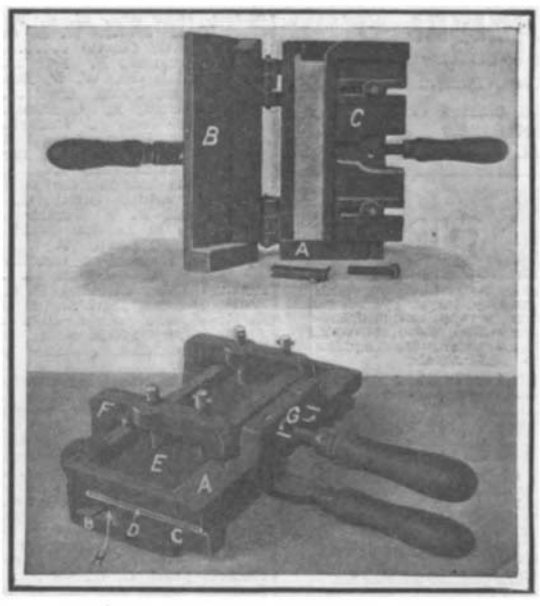
GAS ENGINE IGNITER.

and the pulley *B*, if the flywheel rotate counter-clockwise, the pulley will not interfere with the frictional engagement of the belt and flywheel, but if the flywheel turn in the opposite direction, the idler *D* will force itself between the flywheel and the belt, and cause the latter to continue its motion in the same direction. Thus a constant direction of rotation of the magneto armature is assured. The energy generated by the magneto is conducted by means of a wire *E* to a brush *F*, which engages a contact *G* on the engine frame. Thence the current passes to the primary winding of the induction coil *H*, and returns to two contact points *J* and *K* on the magneto frame. A rod *L* connected to an eccentric on the magneto shaft serves to mechanically vibrate a contact spring between the points *J* and *K*, with the result that the current is twice interrupted at each complete revolution of the armature shaft. The secondary of the induction coil *H* leads to the spark plug *I*, and the coil is provided with a condenser *M*. In starting the engine, it is often necessary to give the crankshaft a few turns in the reverse direction; but this ordinarily involves a rotation of the magneto also in the reverse direction. By the arrangement here shown, the idle pulley *D* serves to transmit the power to the magneto, always in the proper direction regardless of the direction of rotation of the flywheel.

Mr. Albert N. Classon, of 93 Thirty-third Street, Chicago, Ill., has recently patented this system of ignition.

CASTING TOOL FOR PRINTING OFFICES.

Pictured in the accompanying engraving is a tool adapted for molding borders, rules, dashes, etc., and hence should be found quite useful in printing offices. By a slight interchange of parts the tool may also be used for forming leads, slugs, and metal furniture. The tool is quite simple, consisting of two mold sections *A* and *B*, provided with handles. The section *A* is an open frame approximately rectangular in shape.

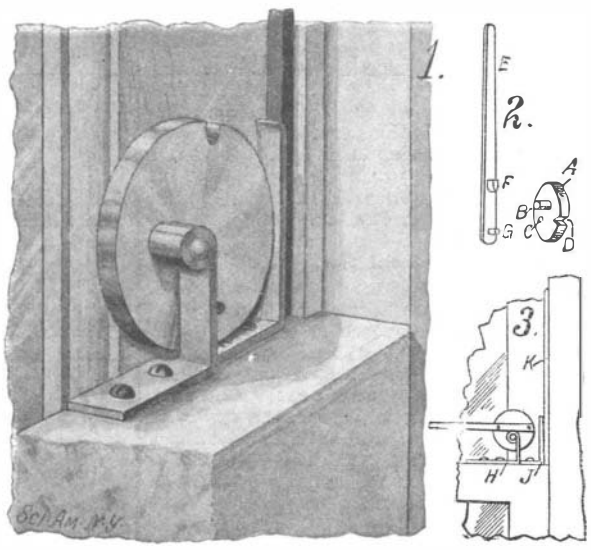


CASTING TOOL FOR PRINTING OFFICES.

The section *B* consists of a plate formed with an upwardly-extending flange on two of the sides. In addition to the two mold sections, a plate *C* is provided, which is formed with two downwardly-extending flanges adapted to bear on the plate *B*. At *D* a filling strip is shown. The two mold sections are hinged together, and extending over section *A* is a frame *F*. This is provided with four pressure screws, adapted to bear against a platen *E* set in the open frame *A*. The frame *F* is fastened to section *A* by pins *G*. In use, if it be desired to form a rule or border, the latter is placed between the flanges of the section *B* and member *C*. The space between these flanges may be varied at will. A piece of prepared matrix paper is laid over the rule or border. This is then covered with a layer of felt, after which the two mold sections are clamped together, and the platen is forced downward by tightening the pressure screws. In this way an impression of the article to be cast is obtained. After removing the article, the tool is closed, and metal is poured into the open end *H* of the mold, and the cast is made. The inventor of this casting tool is Mr. Howard Goddard, of Canton, Ohio.

IMPROVED SASH LOCK.

The advantages claimed for the sash lock herewith illustrated are that it will securely lock both sashes at any desired position in a window frame, and that when set it cannot be unlocked without the use of a special implement. Hence the window is made proof against sneak thieves or burglars, because the sashes cannot be unlocked after breaking the glass, by passing the hand through the window to the lock. The device is exceedingly simple, consisting of a cam or eccentric disk *A* mounted on the lower sash, and pressing against an iron bar carried by the upper sash directly in front of the parting bead. The disk *A* is provided with a pin *B* at one side, and a notch *D* in the periphery at the opposite side. The disk is mounted to turn on a shaft *C* secured in a bracket, *H*. In order to turn the cam, a lever *E* is furnished, which is formed with a lug *F* adapted to engage the pin *B*, and a pin *G* adapted to enter the notch *D*. This rod when applied to the cam provides a long leverage, by which the cam may be rotated on its bearings, and made to press against the iron bar carried by the upper sash. In order to prevent the sashes from mov-

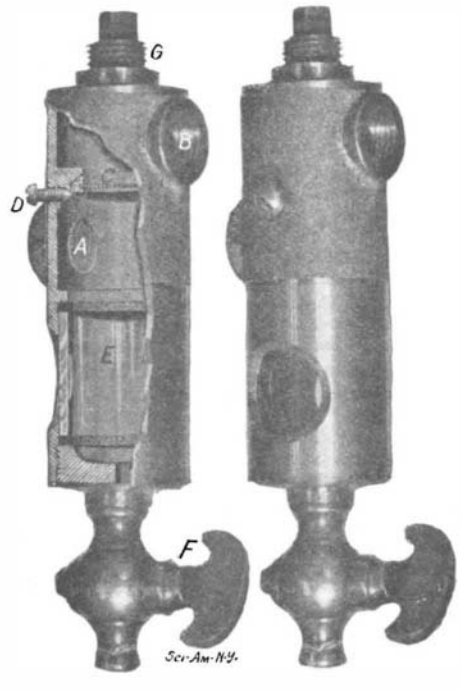


IMPROVED SASH LOCK.

ing with respect to each other, owing to frictional contact with the periphery of the cam while the latter is being turned, a spring piece *J* is provided on the lower sash, which projects between the cam and the bar *K*. Once the sash has been locked, the lever *E* is removed, and it is then impossible to turn the cam. The inventor of this sash lock is Mr. Jesse H. Barton, of Brownsville, Tenn.

AN IMPROVED GASOLINE TRAP.

The invention illustrated herewith is adapted to be used in connection with gasoline supply pipes or carbureters, and is designed to facilitate the separation of sediment, water, and other impurities in the gasoline, before the latter is vaporized in the carbureter or engine. The arrangement is such that impurities are strained out of the gasoline, and collect at the bottom of a special chamber, the sides of which are transparent, so that the amount of water and sediment collected may readily be ascertained and drawn off through a stopcock at the bottom. In our illustration, the inlet pipe is shown at *A*, and the outlet pipe at *B*. The gasoline entering the pipe *A* fills the trap, and is obliged to flow through a screen *C* before it can reach the outlet pipe *B*. The screen is mounted in a ring formed with a beveled edge, and the pointed ends of a pair of set screws, *D*, engaging this beveled edge, hold the ring against its seat in the casing of the trap. The lower part of the trap is fitted with a glass tube, and is provided with a pair of sight openings, which permit of ascertaining the quantity of sediment collected in the trap. The lower end of the trap is closed by a plug fitted with a stopcock *F*, through which the sediment is drawn off. Aside from the outlet pipe *B*, an opening is provided in the top of the trap, in which a second outlet pipe may be fitted. This opening is normally closed by a plug *G*. The inventor of this improved gasoline trap is Mr. William J. Kramer, 246 Van Alst Avenue, Long Island City, New York.



IMPROVED GASOLINE TRAP.