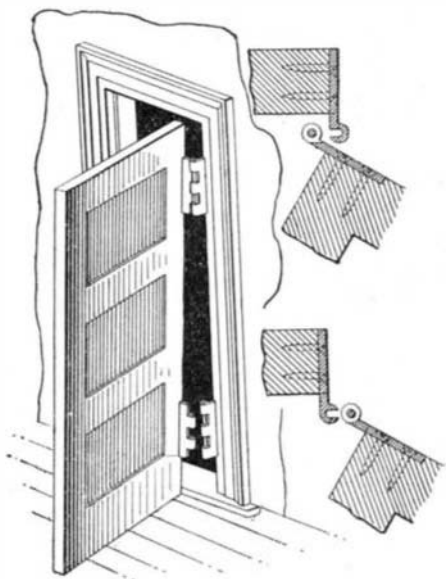


ODDITIES IN INVENTION.

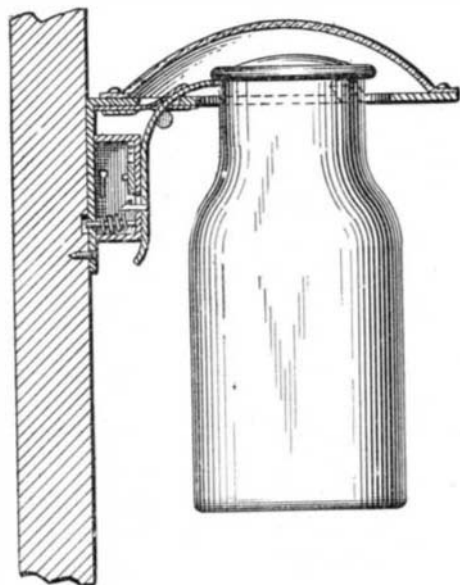
SEPARABLE HINGE.—Great difficulty is often experienced in hanging a door or shutter provided with ordinary hinges, and an inexperienced person sometimes finds it almost impossible to replace a door which has been unhinged. A New Yorker has invented an improved type of hinge adapted to overcome this difficulty. The construction also provides easy access to the pintle for the application of a lubricant thereto.



SEPARABLE HINGE.

As revealed in the accompanying illustration the pintles are formed integral with the leaves which are attached to the door jamb, while the other leaves of the hinges are formed with slotted knuckles adapted to fit into recesses in the pintle hinges and engage the pintles. The slots in the knuckles of the door-leaves, however, are oppositely disposed, so that when mounting the door the upper leaf is first moved into engagement with its corresponding pintle leaf and then the lower one is moved into position. The door is kept thus in hinged position by the action of gravity but can be unhinged by a horizontal pull. By examining the illustration it will be observed that upper leaves cannot be disconnected until the door is wide open.

LOCK AND PROTECTOR FOR MILK JARS.—Milkmen in some localities have a great deal of difficulty in safely delivering milk to their customers. Owing to the fact that they make their rounds long before their customers are up in the morning, they have to leave the jars of milk outside the door or at some hiding-place designated by the customer. The milk is thus liable to be stolen if the hiding place is discovered by an unauthorized person. To remedy this evil the jar-lock illustrated herewith has been invented. It consists of a plate formed with a central opening to admit the neck of the jar and is secured to the door frame or the side of the building by means of a bracket. Projecting into the aperture of the plate are a pair of lugs, preferably located near the outer end of the plate,

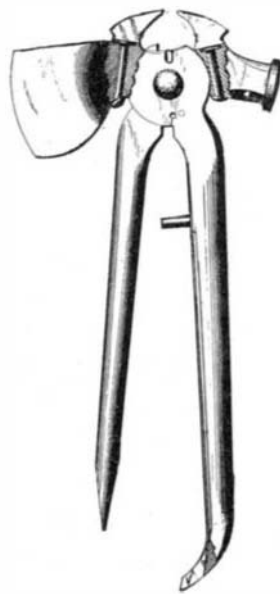


MILK-JAR LOCK.

while at the inner end is a lever, the tip of which projects into the aperture when the device is in locked position. The lower end of this lever carries a catch adapted to be engaged by a tumbler in the lock which is mounted on the main bracket of the device. Normally the lever is held in open position by a spring-pressed pin projecting through the casing of the lock. In use the milk jar is slipped into the aperture of the plate, with the rim resting against the lugs. The lever is then pressed back to the position illustrated, in which it will be held by the spring tumbler. The tip of the lever is thus pressed against the inner side of the rim,

holding the jar firmly in place. The jar cannot then be removed without raising the tumbler with a key.

COMBINATION TOOL.—A combination tool which possesses considerable merit has recently been patented by an inventor in Kansas City. The tool is capable of performing the functions of a hammer, a hatchet, a nail-puller, a wire-cutter, a staple-puller, a screw-driver, and a wire-tightener. It consists essentially of a pair of pivoted levers. The longer arm of one of the levers is curved and bifurcated at the end to form a nail-puller, while the shorter arm of the same lever carries a hatchet blade. The longer arm of the other lever is sharpened at the end to form a screwdriver, while the shorter arm of the same lever carries a hammer head. Just above the pivot pin of the tool the two levers are notched, and the shearing action at these notches enables the operator to nick or cut small pieces out of metal or wire. Wire may also be cut by threading it through holes formed in the two levers immediately below the pivot and then shearing it by pressure on the levers. Two claws are riveted to the levers, one adjacent to the hammer head and the other adjacent to the hatchet blade. These will be found convenient in pulling staples. The claws are so shaped that they also afford a convenient means for taking up the slack in a wire.



COMBINATION TOOL.

TELEPHONE DIRECTORY.—A telephone directory of novel form is shown in the accompanying engraving. It is made up of a flat disk with a central orifice which embraces the mouthpiece of the telephone. Radially disposed on this plate are a number of name-strips which are held in place by means of retainers. These consist of a pair of wire rings woven in and out through the disk, thus forming loops through which the name-strips are inserted. The disk may be re-



A NOVEL TELEPHONE DIRECTORY.

voiced to bring any desired name strip into more convenient position. A pointer is provided, as shown, which may be moved to indicate the card of a subscriber whom the user desires to call or with whom he has been unable to make connection. It will be observed that the name strips can readily be removed and replaced by new ones whenever occasion may require.

Brief Notes Concerning Inventions.

An ingenious device for brushing clothes, in lieu of the more conventional clothes brush, has been introduced into a London hotel. It is an adaptation of the vacuum cleaner, now extensively utilized for cleaning carpets, furniture, etc. By this apparatus every particle of dust and dirt in a person's clothing can be removed much more quickly and thoroughly than with a clothes brush, which only removes the surface dust on the apparel. In the basement of the hotel is installed a small air pump driven by an electric motor. From this a long tube extends to the suction nozzle of the apparatus, placed in the vestibule of the hotel. An attendant passes this nozzle quickly over the clothes of the customer, and all the dust is drawn from the cloth into the machine.

For the purpose of preventing dishonest employes from robbing the store of their employer, by reason of the fact that they have been intrusted with the key of the plant, a new invention in the way of locks has been recently patented by F. M. Thompson, of Danbury, Vt., the novelty of which is that it is operated

by three keys. The person whose duty it may be to lock the establishment up each evening has one key, and while this will permit of the closing and securing of the door, it will not open it again. The boy to whom is intrusted the duty of opening in the morning has another key, which will answer his purpose only, that of unlocking. The third key referred to is the master key, in the hands of the proprietor, by which the lock may be operated at any time.

Tableware which closely resembles fine translucent china, and which is said to be almost impossible to break, is the produce of a Liege, Belgium, establishment, and so remarkable is this article that it has been made the subject of a report by the United States consul at that point. Severe and unusual shocks and sudden changes of temperature have little or no effect on these dishes, and the consul making the report says that he saw pieces of the ware used to drive nails with, and also thrown around on a stone floor, without the slightest damage being sustained. The resisting power of this ware is due to the special hardening process and to the nature of the crystal used in its manufacture. The color of the hardened crystal ware is of a blue white, and not the pure white of porcelain. The same firm also makes glassware of a corresponding hardness.

Joseph G. Branch, the Chief Inspector of Boilers and Elevators of the city of St. Louis, Mo., is the inventor of a life net which is designed to be placed in the bottom of an elevator shaft, for the purpose of catching persons who may be unfortunate enough to fall by any chance through any of the openings of the well. It consists of a wire net, held on two sides by rods, which are in turn supported by strut arms. The lower ends of these arms fit the bearings of pillow blocks, which are bolted to a stout plank secured on the bottom of the shaft. The net is held taut by large compression springs acting at the upper end of the strut arms. When a falling body strikes the net, the fall is broken by the combined action of the net and springs, the arms closing up scissors-like, and after taking the force of the fall, the net resumes its former position through the action of the springs. The device is inexpensive and durable.

Reference has been made heretofore of the aerial merry-go-round which has lately been erected in one of the London amusement gardens, which is said to have been designed by Sir Hiram Maxim. Because of the fame of its inventor and of the gigantic proportions of the device, this apparatus attracted a great deal of attention, but it subsequently developed that very similar devices had been made for several years by a Philadelphia firm and shipped to various points about the country, principally in the West. The English papers have now discovered that the same idea had been in vogue as early as 1882 in their country, the invention of J. G. Inshaw, but being very much smaller had probably made no lasting impression. The principle made use of in the two devices is the same, but in Mr. Inshaw's device there were accommodations for thirty-six persons only. As previously noted, the Maxim construction is much larger.

The Los Angeles Railway Company makes use of an exceedingly novel arrangement for operating a group of switches in that city at the intersection of First and Spring Streets. At this point there are double tracks crossing each other and two double-track connecting curves. The cars of three lines pass here, and under ordinary circumstances the street-car traffic amounts to 210 cars per hour. On holidays and special occasions this number is somewhat increased, so that the switching of the cars manually, as it was done until recently by one man, became quite a gymnastic feat; and although the man became very expert, there were frequent delays at this point. A system of operating the switches from one point has been recently put into use, and there is a great improvement shown in the handling of the cars. The system is the patented invention of Dr. W. J. Bell, a dentist of that city. The operator is placed in a tower on a pedestal over the sidewalk, where his house is entirely out of the way and where he can have an unobstructed view of the cars and tracks. Liquid pressure is made use of as the medium of moving the switches, oil being used as the fluid. The pumps and other mechanism are located in the tower house, and are driven from the 500-volt railway current. To each of the four switches is run a pressure pipe three-quarters of an inch in diameter. All the switches are held in the usual position, that is for straight track, by means of springs. When the operator desires to throw a switch, he pulls down the valve handle to a horizontal position, which movement opens a three-way valve, and allows oil under a 60-pound pressure to move the switch tongue over against the force of the springs. A thin paraffine oil from which the solids and distillates have been removed is made use of. This is practically non-inflammable, and has the additional advantage that it will not freeze in the colder climates where the system may be made use of.