RECENTLY PATENTED INVENTIONS. Railway-Appliances.

CAR COUPLING .- THOMAS HENRY SMITH, Bowie, Tex. The invention provides an automatic locking arrangement for a car coupling. The coupling consists of a stationary jaw and a swinging jaw vertically pivoted upon it. A horizontal shaft passes through the stationary jaw and the rearwardly projecting arm of the movable jaw, which is slotted to receive a couple of beveled keys on the shaft. Two other keys are fitted to the shaft between this arm and the stationary jaw, and these serve to lock the coupling when it is closed. The shaft on which they are placed has a weighted arm at each end which holds it in the proper position. By giving it a quarter turn, both pairs of keys are so placed as to slide into openings in the stationary jaw and movable arm when the coupling is opened. When it is closed, they assume their former position automatically.

Steam Generating Apparatus.

BOILER FURNACE.-André P. Ritzos, Galata, Turkey. The furnace has two chambers, one for the combustion of the fuel and a larger one containing the heating coils. There are three coils arranged transversely across the chamber. The front one is the highest and has the interstices between the pipes filled so as to make a complete partition. This causes the gases of combustion to rise and pass over the coil, when they descend between the other two coils and pass out at the bottom of the chamber.

BOILER FEEDING APPARATUS .- JAMES SCOTT Hakodadi, Japan. This invention consists of two water receivers, in which the steam pressure of the boiler acts alternately so as to force water from the receivers past check valves into the boiler. It is particularly adapted for use in boilers in which there is a strong back pressure on the steam and in which it would be difficult to feed water by the ordinary appliances.

Electrical Inventions.

CONDENSER.-PETER COOPER HEWITT, 11 Lexington Avenue, New York, N. Y. This condenser consists of a plate of glass having concentric rings of tinfoil arranged upon both sides. There is an open space between the ends of each ring, and the end of one ring is connected to the end of the next in such a wayas to form a continuous spiral, and also so that the discharge will take place in opposite directions on the two sides. The magnetic effect is centralized by causing the discharge to follow the path in the coatings, and sufficient current is induced in a secondary to light a lamp.

TELEGRAPH SOUNDER. - James Swinton BAYNARD, care L. R. L. Pritchard, 115 Broadway, New York, N. Y. The improvement made by this inventor consists in a circular case of some resonating material in which the sounder is placed. The arm against which the armature lever rebounds may be brought in contact with the cover, thus producing very loud sounds, or it may be adjusted so that the lever makes a short stroke, and hence works very quietly. In order to increase the difference in sound on the attraction and release of the armature, the cores of the electro-magnets have hard-wood pings fastened in their The bottom of the case screws into the top part, and in its sides are holes which correspond with holes in the latter, by the partial or entire closing of which, the sounds are also muffled

ELECTRIC DOOR OPENER.-ADOLPH F. T. WIE-CHERS, 9 Columbus Avenue, New York, N. Y. The chief features of this invention consist (1) of a novel push button to be placed in an apartment or flat for the purpose of unlatching the front door; (2) an automatic circuit maker fastened to the hammer of an electric bell. By turning the button to a certain position contact is made by a pin with some mercury or powdered carbon, which forms a connection through the button with the circuit closer on the bell hammer. When the button is pressed at the front door, the vibration of the bell hammer makes the circuit through the automatic door latch, and unlocks the door.

ELECTRIC SIGNAL. - WENDELL H. STILLWELL Topeka, Kan. The object of this signal is to call the attention of an engineer to orders which he might overlook, at any point on the road where it is desirable. An electric bell is attached to the order board, and one wire from the bell passes under each clip. The clips are connected. and, consequently, if there are no papers under them, the current will be short-circuited, while, if there are papers, the bell will ring till disconnected by the engineer. The connection is made by a push lever with small wheel on the end, which rolls over a block beside

ARC LAMP.-EDWARD M. CASHION, Glens Falls, N. Y. The object of this invention is to provide a simple and adjustable means for permitting and regulating a continuous passage of air through the inner globe of an inclosed arc light. The inventor forms the top and bottom of the inner globe of two disks, the inner one of which fits loosely around the carbon, leaving an air passage, and the outer one fits snugly, so that the air must pass out between the disks. The distance of these apart is regulated by screws. A pan to catch the dust is fitted around the lower carbon just above the inner disk. The life of the carbons has been found to increase four or five times by the use of this device.

Miscellaneous Inventions.

HOG-TRAP .- JOHANN J. EHMEN, Chattan, Ill. This invention provides a trap for holding hogs in order to ring their nostrils. The trap when set has both its end doors open so that the hog will see what appears to be a clear passage-way and will readily enter. When he has entered the trap, he will step upon a tripping device which releases both doors so that they will close simul

BATTER MACHINE. - JOHN CALVIN ROBERTS, Bedford, Pa. The object of this invention is to provide a machine in which the ingredients for forming hat. ter may be quickly and thoroughly reduced to the proper consistency and then stirred together and made ready for the oven. The machine contains a sugar crusher, a beater, and a sieve. To form batter, the proper amount of sugar is placed in a graduated hopper, and by simply of this paper.

turning a crank it is pulverized and falls to the bottom of the machine, where the beateris situated. This is then thrown into gear and eggs are beaten up with the sugar The pulverizer is afterward replaced by a sieve, through which the other ingredients forming the batter are intro duced.

BEATER AND SIFTER .-- JOHN CALVIN ROBERTS Bedford, Pa. This machine is the same as the preceding one, with the exception of the sugar pulverizer, which is omitted. It is used for sifting flour, etc., and mixing it with eggs and other ingredients, both operations being carried on simultaneously or separately as desired.

SELF-DRAINING CULINARY VESSEL.-HELEN J. CARDEN, Bakersfield; Cal. The vessel is an octagonal saucepan having small perforations in one half of its cover, which is permanently fastened to the sides, the other half being removable, in order to insert the vege tables. A lid covers the perforations in the cover while the vegetables are cooking, and is provided with a simple catch which holds it in place but allows of its being blown open if the pressure becomes too great. Since the vessel has a flat side, it can be laid down and allowed to drain without any special attention.

INDIAN CLUB.-SAMUEL A. TAYLOR, care M. J Gleason, 142 Fulton Street, New York, N. Y. The invention covers two forms of club, one made of rubber and inflated and the other having a skeleton wire frame covered with leather or other suitable material. In both kinds a spiral spring is placed in the handle of the club, so that if it is dropped on its end it will rebound. Many other new effects can be produced with this club, while it cannot damage furniture in the least.

LIGHTING ATTACHMENT FOR ALARM CLOCKS. -Cullen A. Robertson, The Wonderful Clock Company, Milledgeville, Ga. The attachment consists of a spring-actuated match-holder arranged to ignite a match by rubbing it over some sand-paper, the match lighting a fuse suspended over it, which in turn lights a candle or fire. The match-holder is released by a tripping lever connected with the alarm winder of the clock

SHOW CASE.-ERNEST FADUM, Assignor of onehalf to Reinle Brothers & Salmon, Baltimore, Md. The novelty of this case lies in the fact that each and every glass can be removed at will without injuring it in any manner. The frame is made of metal channel plates and the glass top is held in place by the side pieces. which also support the slanting front.

FILTERING TANK FOR USE ON STREAMS.-EDWARD MAGINN, Allegheny, Pa. The tank is built along the river bank, which forms one side of it, and its ends make obtuse angles with the bank. The sides are formed preferably of sheet steel, held in place by steel piles driven on both sides. A low exterior wall surrounds the tank, and the inclosure thus formed is filled with sand, as is also the bottom of the tank. The water percolates through the sand and thus is purified, after which it is drawn off from the tank through a pine line.

INDEX .- BAILEY DUKE LE GRAS. Assignor to the Brandon Printing Company, Nashville, Tenn. The index consists of a large sheet having an index tab running the length of the right handside. Slits opposite each other and spaced apart are arranged down the sides of the tab, and into these are placed properly ruled slips of paper on which the balances may be posted, the name of the party or firm owing the balance being placed in the space above. The index tabs project beyond the leaf and may be multiplied to any number required. 'The book adapts itself to the use of bankers, merchants, manufacturers, and to all other businesse in which a general self-indexing account book is required.

MUFF-LINING. - MARGARET MAGUIRE, Windsor, England. The object of this invention is to provide a lining for ladies' muffs which can be readily inserted or removed, and which will remain fastened in the muff without sewing. This is accomplished by making a collapsible cylinder of silk with flanges on each end, which are held in shape by means of a wire. The cylinder can be gathered up in the middle or let out to fit any

MAIL-POUCH CLOSURE. - WALTER A. PIATT, Pine Ridge, S. D. The pouch has a top or cover made of a strip of leather doubled over with a metal plate in the fold. The top is held in place over the open end of the bag by means of riveted staples or brackets on both sides of the neck of the pouch. A small space is left between the top and the mouth of the bag, through which to extract the mail matter, and the bag is closed by a metal har H-shaped in cross section, the cross arm of the H going between the top and neck of the bag, and the side uprights passing along the mouth under the U-shaped brackets. The end of the closing bar is locked to the edge of the bag by a hasp and padlock

DUMPING SCOW. - FRANKLIN P. EASTMAN, 265 Broadway, New York, N. Y. The center of the scow has a peak-shaped crosssection running longitudinally the whole length. Hinged sides are fastened to it and are so arranged that they can all be unlocked and lowered simultaneously, thus ridding the scow of its load.

WAGON-STANDARD. - JASPER N. SMITH, Tiverton, The invention provides an easily detachable wagon standard to be placed on a bolster or other support. To the end of the bolster is fastened a U-shaped strap, on opposite sides of which are single holes penetrating through into the wood of the bolster. A flat steel spring with a pin near one end is fastened to the standard, and the pin goes into the hole provided for it. thus locking the standard effectually to the bolster.

PEW ROPE AND LOCK .- WILLIAM H. CLARK and LLEWELLYN J. WATTSON, San Francisco, Cal. The object of this invention is to provide a lock that may be made of uniform size with the rope with which it is to be applied, and wherein the body and keeper of the lock will be connected by a chain concealed within the rope and preventing it from stretching. The lock is of a simple yet durable construction and of such a form that the keeper and lock may be brought automatically to a locked position, but cannot be separated without using a key.

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(7707) H. K. W. asks: Will a platinum vire heated by an electric current ignite the compres charge in a gas engine? A. Platinum wire, heated by an electric current, would act too slowly to be used for igniting the charge of a gas engine. A spark is instantaneous. A wire requires time both to heat enough to set fire to the gas and to cool enough to allow the nex arge to enter the cylinder without igniting it

(7708) H. B. writes: I have a thermometer hanging in a room (an exceedingly accurate one). It registers 82° say; now I start a small electri motor and hang the thermometer directly in front of it, what will be the effect on the thermometer? A. The proper reply to this inquiry is, try it and see. It is so easy of practical solution. If the thermometer has no moisture on the bulb, it will not be affected by the current of air from the motor. If the bulb has moisture or it, the reading will be lowered since the heat necessary to evaporate this moisture will most easily be obtained from the mercury of the thermometer, thus cooling it A dry thermometer registers the temperature of the place where it is. A wet bulb thermometer registers the temperature produced by evaporation of water, usually lower than that of the air where it is. This is some times called the "sensible temperature." A current of air from a fan cools us by removing the air which is a the moment in contact with our skin, and which is satu rated to a degree with moisture from the skin, and re placing this air with other air which contains less mois ture. This dry air takes moisture from the skin and the evaporation of this moisture makes us cool

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