

RECENTLY PATENTED INVENTIONS.

Pertaining to Apparel.

SUBSTITUTE BUTTONHOLE ATTACHMENT.—F. ROBERTSON, Denver, Colo. This attachment serves as an inexpensive substitute for frayed and worn-out buttonholes and may be quickly applied and detached without the use of any device other than the hands, and when applied presents a neat appearance and does not interfere with the flexibility of the surrounding material.

RECEPTACLE FOR BABY-CLOTHS.—C. BREWER, New York, N. Y. This receptacle is adapted to be set within the bowl of a water closet during the cleansing manipulation of the cloths and to retain no water when lifted therefrom. It is provided with a plug or stopper adapted to hold the water of the flushing system in the bowl.

Electrical Devices.

HAIR-DRYING APPARATUS.—W. A. SOLES, New York, N. Y. The invention is more especially designed for use in hairdressing establishments, barber shops and other places, and is arranged to insure drying of the hair by heated air and under the invigorating influence of artificial light, by the use of an electrically driven fan arranged in the rear of a cluster of electric lamps contained in a hood open at the front for the passage of the heated air and the rays of light.

Of Interest to Farmers.

MILK PASTEURIZER AND FILTER.—C. C. STAMBAUGH, New York, N. Y. In the present patent the invention has in view a simple apparatus for use in the pasteurization and filtration of milk, the pasteurizing and filtering being successively and continuously performed by passing the milk through a pail or vessel having the inventor's improvements.

Of General Interest.

PACKAGE-TIE.—H. J. LEE and E. F. GRAY, Scranton, Pa. The purpose here is to provide details of construction for a package tie, which are simple, practical, very convenient to tie or release a package, and that particularly well adapt the improvement for binding together a number of letters or documents in a compact package that may require separation quickly.

SHEET-METAL TUBING.—W. P. LAWRENCE, Colorado Springs, Colo. This improvement has reference more particularly to a construction of tubing for use in the frames of window sashes, window screens, or for the uprights or transverse members of metal furniture, or for paneling or any other similar structure in which it may be desired to employ sheet metal tubing.

KNOCKDOWN BOX.—W. L. HOWLAND, Cedar Rapids, Iowa. This hollow box frame is open at the top and bottom, close around the inner sides of which is disposed a continuous piece of material projecting beyond the top and bottom of the frame, and having its projecting portions cut and bent down and against the top and bottom of the frame so that when the top and bottom members are secured, the continuous piece of material will be held close to the inner sides of the frame, while it may be readily removed by removing the top and bottom members.

HAND MIXING-RECEPTACLE.—A. HALLENBERG, Fargo, N. D. This inventor furnishes a receptacle for materials wherein the same may be mixed by compression of the walls of the receptacle. He provides a receptacle to receive materials to be mixed, provided with finger holds to protect the fingers, and to provide holding means for the receptacle.

MEANS FOR HANGING DOORS, SCREENS, ETC.—T. GILL, Follansbee, W. Va. The means consists in the main of a post or column of a length nearly equal to the height of the door opening or casing and provided with a suitable adjusting device for extending its length until it clamps at its ends against the door casing with sufficient force to retain it in place, the door being hinge-connected to this post in the usual manner of connecting it directly to a door casing.

BUTTER AND LARD CUTTER.—C. H. CARLSON, Iron Mountain, Mich. The aim in this instance is to provide a device especially adapted to cut out and remove a shaped pat of butter or lard from a firkin or other receptacle, and which is provided with means for ejecting the pat from the device without the necessity of touching it with the hands or any tool.

Hardware.

BENCH-STOP.—M. R. RAYNESFORD, Ellis, Kan. This invention relates to stops, and more particularly such as are adapted to be used on carpenters' benches for holding one end of a board firmly against the apron of a bench while the opposite end of the board is clamped in a vise. It constitutes an improvement on the device shown and described in a U. S. patent formerly granted to Mr. Raynesford.

HOSE-COUPLING.—W. F. KOPER, Chillicothe, Ohio. In using this invention, the head piece is introduced in the terminal of the union member having an annular chamber therein, and it is rotated in the terminal until

the stems of the T-shaped members are in alignment with the slots that separate the pairs of lugs, when the head piece is pulled outwardly until the T-shaped members interlock with the inner faced lugs. In this position the head piece protrudes through an opening in the rubber cup.

Household Utilities.

CLOTHES-LINE HANGER.—C. C. LOVEJOY, New York, N. Y. The device may be conveniently attached, and will operate to support the line in such a way that the end of the line may be brought into the room to enable the clothes to be hung thereupon, and the device may be readily folded up out of the way when not in use.

CLOTHES-LINE TIGHTENER.—R. C. SCHEURER and L. MAREK, Union Hill, N. J. This invention pertains to clothes line tighteners, and the object of the inventors is to produce a device which can be readily applied to a clothes line, which will enable the slack of the line to be taken up, and which will maintain the line under tension.

Machines and Mechanical Devices.

DEVELOPING-MACHINE FOR PHOTOGRAPHIC FILMS.—ELIZABETH A. TAYLOR, Steilacoom, Wash. This invention consists of a plurality of cylinders of different diameters disposed one within the other, there being slots in the cylinders, and projecting therein which engage each other so that when one cylinder is rotated a predetermined distance the projection thereon will engage the one on a neighboring cylinder to rotate it. In use the end of the film is secured to one of the cylinders and as they are rotated the film is wound around them, the film passing through the slots from one cylinder to another.

Musical Devices.

REED-ORGAN.—L. A. McCORD, Laurens, S. C. It is sought in this invention to provide an organ attachment which can be applied to any of the ordinary reed organs and will permit the playing of the organ by an automatic or self-player such for instance, as those using a certain perforated paper strip or sheet, and which self-playing attachment may be adjusted out of the way so the organ may be played in the usual manner.

ADJUSTABLE PIANO-PEDAL CONNECTION.—H. MEYER, New York, N. Y. The invention here is to provide an adjustable piano pedal connection, arranged to insure accurate working of the hammer rest rail, the damper rail and the muffer, as desired. The connecting bar is adjustably secured to a flat spring, which forms the fulcrum for the bar and is attached to a base secured to the bottom of the piano frame.

Railways and Their Accessories.

RAILROAD-TIE.—J. W. SNEDDEN, Falls Creek, Pa. Disclosed in this patent is a tie the sides of which are connected below the top by a web, the upper edges of the sides having inwardly projecting flanges between which the movable member of the rail fastening means coact with fixed rail retainers at the opposite side of the rail. The tie is hollow and between the walls either a filling of concrete, or a block of wood is adapted to be received.

BLOCK-SIGNAL SYSTEM.—J. D. NIX, Ferriday, La. An object of this inventor is to provide a mechanism which is located on the engine and forms part of the mechanism thereof which may be automatically operated by an electric current from a generator carried on another engine which is in the same block. The generators for furnishing the current may be either dynamos or batteries.

FLAG OR SIGNAL.—G. W. DALLMORE, Pocatello, Idaho. The object here is to produce a flag for use on railways, having a pole or staff within which the curtain or body of the flag may be received when the signal is not being displayed, and further, to provide a simple construction enabling a flag to be extended or withdrawn from view.

CAR-FENDER.—G. A. ESTLER, Standish, Mich. In this fender, a catching and supporting means prevents injury to a person with whom the fender has forcible contact, and the purpose of the invention is to provide for a fender effective in service, and which may be placed on street or other cars for service without requiring changes in the construction of the cars.

LOCK-VALVE.—T. M. SWANK, Louisville, Ky. This valve is for use in connection with the train pipe of an air brake system, which has locking mechanism serving to prevent unauthorized and malicious tampering with the valve, which also prevents accidental closing of the valve when open, and which will not cause unnecessary delay in certain operations such as in switching or coupling cars.

AUTOMATIC TRACK-INSPECTOR.—T. ELLIS, Tacoma; G. H. PURVIS, Seattle, and J. S. CREPECH, Raymond, Wash. The invention relates to automatic track inspectors, that is, to mechanism for indicating the condition of a railway track. More particularly stated it comprises various improvements, whereby the general efficiency of such mechanism is greatly increased, and the operations rendered more practicable.

Pertaining to Recreation.

COMBINED CREEL AND KIT.—H. W. WAKEFIELD and C. F. HARTER, Seattle, Wash. The improvement is in anglers creels, the purpose of which is the provision of a kit in connection with the creel or basket for the storing of hooks, lines, leaders and other fishing paraphernalia, in order that the same may be at all times readily accessible and thus facilitate the replacing of lost hooks, etc.

GAME.—H. E. HIRE, Mark Center, Ohio. Mr. Hire's invention relates to games, and the object is to provide a game which has many of the features of the game of base ball and is especially devised to assist in the training of pitchers for the outdoor game of base ball, and to test their skill at the outdoor game.

TOY CANNON.—W. H. CORNFORD, Mornington, Victoria, Australia. This application is in part a division of the application formerly filed by Mr. Cornford for Letters Patent on a military game or toy, and the present invention relates to a toy cannon or gun of special construction adapted to be used in connection with the said game. It provides for rapid firing of pellets, retaining them in position till fired, automatically readjusting them if displaced, and means for elevating and depressing the cannon.

Pertaining to Vehicles.

INFLATING DEVICE FOR TIRES.—E. HAYNES, Bisbee, Ariz. Ter. This invention is particularly useful in connection with pneumatic tires such as are used on motor vehicles and the like. The aim is to provide an efficient device for tires, which is automatic in operation and which obviates the necessity for manually or otherwise extraneously inflating a tire.

VEHICLE-TIRE.—C. F. FISK, Allentown, N. J. The invention consists of a rim of two sections bolted or otherwise detachably secured to the felly and having relatively deep outwardly-extending flanges, with a shoe rim at the outside of each flange, a tire having resilient ribs in engagement only with the inner faces of the flanges and the tire and ribs otherwise disengaged from the rim, a shoe extending around the tread of the tire having its edges located in the shoe rims, and clamping rings securing the shoe to the shoe rims.

DRIVING-GEAR FOR AUTOMOBILES.—E. G. WHITACRE, Wellsville, Ohio. This invention relates more particularly to the mounting for the driving engines used in automobiles. The style of the engine may vary, but any form wherein the motive power is a gas under pressure will serve. It might be used in internal combustion engines provided any of the well known relief valves were used in conjunction with one or the other of the engines, which would be operated automatically as the automobile is driven in a curved path. The valve would lessen the power stroke on the engine on the inner side of the curved path being followed by the automobile.

NOTE.—Copies of any of these patents will be furnished by Munn & Co. for ten cents each. Please state the name of the patentee, title of the invention, and date of this paper.



Kindly write queries on separate sheets when writing about other matters, such as patents, subscriptions books, etc. This will facilitate answering your questions. Be sure and give full name and address on every sheet.

Full hints to correspondents were printed at the head of this column in the issue of March 13th or will be sent by mail on request.

(12136) A. R. S. says: '1. Why when the moon is growing can one see a bright outline of that satellite, while the inner portion of the circle appears dark? A. When the moon is within two or three days of new, the earth reflects light enough from the sun to make the dark portion of the moon visible. The earth at that time is full as seen from the moon. This is called seeing "the old moon in the new moon's arms." The light is called "earthshine." It is described in the astronomical, such as Todd's "New Astronomy," which we send for \$1.50. See page 225. 2. Why do moon and sun appear to be much larger when rising and setting? A. The sun and moon seem larger near the horizon by an optical illusion due to contrast. With an instrument they do not measure any larger near the horizon. The sky itself is affected in the same way. Stars seem farther apart. 3. How can I locate the following planets: Mercury, Mars, Jupiter, Neptune, Venus? A. The position of the planets is given each month in our article, "The Heavens in September," etc. The proper thing to do is to become a subscriber to the SCIENTIFIC AMERICAN and have the instruction given in the paper. Neptune cannot be seen excepting with a good telescope. The rest you name may be seen with the unaided eye. Mars is now very bright in the night sky. 4. What size wire will be necessary to wind an ordinary telephone generator for ten volts? How many turns will be required? A. A telephone generator is wound with wire from No. 30 to No. 35, and from 75 ohms to 550 ohms. From this you will see

that we cannot tell you what to use. If you would make a generator to work with others, you would better copy one of the others.

(12137) C. L. L. says: Two horses are attached to opposite ends of a rope and are pulling against each other. Both horses are capable of pulling 200 pounds apiece. Is there more strain on the rope with the horses pulling against each other than if one end of the rope is attached to an immovable stake and only one horse pulling it? A. The pull upon the rope with a horse pulling 200 pounds at each end is 200 pounds. One horse is but a post for the other to pull against, and a post can as well be used as a second horse. This anyone can prove by having two persons pull against each other on a spring balance, and then letting one person pull with the balance fastened to a hook on the wall or to a hitching post in the yard. If the balance will indicate all that a person can pull, the experiment will be identical with the one you propose.

(12138) F. S. says: Some time ago we wrote to an electrical supply house asking them whether the numbers in the Brown & Sharp wire tables followed any regular law, and were told that they did not. We are of the impression that the people we wrote to concerning this question must be mistaken, and are writing you, and would like to have you either confirm or deny their statement. A. The sizes of wires by Brown & Sharp's, or as it is better termed, the American wire gage, are not determined by any formula, but are a growth. However, the sizes are such that a wire three sizes larger will have a sectional area about double that of a given wire. This is only an approximation. It is very convenient in electrical work. See our article, "How to Remember the Wire Table," in SUPPLEMENT No. 1,530, price ten cents.

(12139) W. B. H. says: 1. Why is a magneto used to make the spark for a gasoline engine in preference to a small dynamo? A. The field of a magneto is always ready for use, and does not require to build up its magnetism as a dynamo does. 2. Why are the permanent magnets of a magneto divided up into several instead of one large one? A. A compound magnet made from several thin magnets is much stronger than a single magnet of one thick piece of steel.

Legal Notices

PATENTS

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INDEX OF INVENTIONS

For which Letters Patent of the

United States were issued

for the Week Ending

November 9, 1909,

AND EACH BEARING THAT DATE

[See note at end of list about copies of these patents.]

Table listing inventions with patent numbers, including Adjustable bolt, quickly, N. W. Trautner... 939,933; Aeroplane, S. W. Applegate... 939,651; Agitator, F. E. Goldsmith... 939,905; Agricultural implement, W. B. Estis... 939,820; Air brake regulator, C. J. Doerr... 939,896; Air brake retaining valve, J. F. Speigel... 939,928; Air compressor, F. A. Preuss... 939,314; Arrship, B. W. Dysart... 939,483; Annunciator case, H. D. Crouch... 939,472; Ash tray, S. Grunthal... 939,909; Auger attachment, post hole, E. Eisenbraun... 939,235; Auger, square hole, J. Nielsen... 939,438; Axle, combined steering and driving, J. W. Buchan... 939,795; Bag closure, F. McKain... 939,736; Bag fastener, Hering & Fuller... 939,256; Bag fastener, N. L. Raum... 939,316; Bag frame catch, Hering & Fuller... 939,913; Bale tie straightening and cleaning machine, cotton, Merton & Disnake... 939,532; Baling press, F. A. Bothwell... 939,466; Ball grinding machine, C. A. Hirth... 939,502; Balloon, R. C. Tilghman... 939,644; Ballot box, W. W. Willis... 939,367; Band brake, J. N. Lawrence... 939,519; Banking machine, A. Clark... 939,472; Bath tub attachment, A. Bulin... 939,797; Bearing, ball, W. E. Cane... 939,701; Bearings, center, H. S. Rader... 939,443; Bearing, thrust, A. T. Killian... 939,269; Bed covering, W. H. Bender... 939,535; Bed, folding, C. R. Gardner... 939,241; Bed, wall of cabinet, N. B. Douglass... 939,482; Bed blocker, E. Kraak... 939,715; Beiting, H. Loeb... 939,724; Benzozate, manufacturing, E. O. Barstow... 939,584, 939,940, 939,941; Bin. See Display bin. Block signaling apparatus, S. A. Wood... 939,370