RECENTLY PATENTED INVENTIONS.

Pertaining to Apparel.

GARMENT-RACK.—FANNIE WOLF, New York, N. Y. This invention relates to improvements in garment racks, and more particularly to the means employed for supporting the hangers and permitting of their rotation, to expose the garment to view from all sides. The invention involves features of construction substantially the same as certain of the modified forms illustrated in a prior application filed by F. Wolf.

Electrical Devices.

INSULATOR FOR THIRD RAILS.—L. STEINBERGER, New York, N. Y. Among the many objects of this invention may be named the provision of means whereby a movable portion of the insulator may be connected with the rail and so arranged as to turn relatively to a stationary portion of the insulator; the means for securing the insulator to a separate base, thus enabling the operator to handle the entire device as a single unit; and mechanism for taking up pounding action otherwise taking place between insulator and base, owing to the alternate depression and rebounding of a cross tie when a train passes over it.

CIRCUIT-CLOSER.—O. M. TUSTISON, Bainbridge, Ind. The main purpose here is to provide a closer which can be operated only by a special key, and which, therefore, is not capable of being operated by any one other than the possessor of the key. The actuating member is held securely in place while it is in use, thereby rendering it impossible for a separation of the circuit closing contacts.

CONTROLLER.—H. SMITH, Suffern, N. Y. The more particular object of this inventor is to provide a type of controller in which there is a revoluble drum carrying resistance windings upon its periphery, these windings being adapted to dip into a body of free mercury and being movable at will by aid of the drum for the purpose of varying the ohmic resistance of the windings.

Of Interest to Farmers.

STALK-CUTTING ATTACHMENT FOR VEHICLES.—R. B. HUMAN, Chickasha, Okla. The cutting attachment is complete in itself, in combination with cultivator disks, and which can be expeditiously applied to the forward or rear axles of an ordinary farm wagon, or to a similar vehicle, and provide means for lowering and raising the cutter and cultivator disks.

BEET-PLOW.—L. BRENNEIS, Oxnard, Cal. An object of this inventor is to provide a plow with bell crank levers pivoted to the frame, the levers having treadles on one set of terminals with a yoke pivoted to the frame, the yoke having a pin which engages the draft bar to shift it.

Of General Interest.

ANIMAL-TRAP.—G. J. MILLER, Marco, Mont. When the jaws are sprung, and the animal is caught beneath either one, if not instantly killed or disabled, he naturally seeks to escape by crawling out under the jaw. To prevent escape in this manner, each end of the body of the trap is provided with a fang, which will ordinarily pierce the skin or body of the animal when the trap is sprung, which prevents his movement in any direction.

DISAPPEARING TABLE.—G. H. WITTHAUS, New York, N. Y. This table is adapted for use in launches, yachts, apartments, automobiles, and railway cars. One object of the invention is to provide means whereby a removable section of a floor may be utilized as a table, reclining couch, bench, or a settee. Articulated members support the floor section, which may be received within a pit below the surface of the floor.

Machines and Mechanical Devices.

FLYING-MACHINE.—P. V. WADLEIGH, Needles, Cal. The invention relates especially to machines of the aeroplane type. The machine is provided with mechanism for raising the same to the desired elevation, and having independently operated propellers for advancing the machine. The invention resides in the construction of the lifting and propelling mechanism, and in the guiding mechanism.

WELTING-MACHINE.—J. LARSEN, Vestergade 11, Copenhagen, Denmark. The invention relates to means for handling welts in welting machines and in other forms of machines for sewing leather, the more particular object being to provide means whereby the welt is fed step by step into a position favorable for enabling it to be pierced by the needle.

VALVE.—A. PAUL, New York, N. Y. The more particular object of this inventor is to produce an efficient type of valve suitable for use in connection with liquids or gases, and especially adapted for handling illuminating gas. The invention comprises details of construction whereby the closure of the valve is rendered positive and the general efficiency of the valve is greatly increased.

WIRE-FRAME MACHINE.—A. PIASER and H. COHN, New York, N. Y. One object of the invention is to provide a machine which is capable of a plurality of adjustments to permit frames of widely different forms to be fashioned thereon, and which can be operated to release a frame after the latter is formed without destroying or altering the form of the frame.

SPEED-CONTROLLING DEVICE.—C. E. PALMER, Spokane, Wash. The device requires very little attention and is connected to a revolving part of the device to be controlled, with a view to cause the device to run at all times at a sure, steady, even speed, although the power or the load may increase or diminish instantly or gradually.

FLYING-MACHINE.—M. B. SELLERS, Baltimore, Md. The weight of this machine is supported by the air impinging on one or more surfaces, inclined at a small angle of incidence and in motion relative to the air, whether this motion is produced by movement of air or by gravity, or by propelled mechanism. When by gravity, the machine is known as a gliding machine, but it is equally suitable as a power-driven machine.

CONCRETE-MIXER.—W. D. CLOUGH, E. S. CLOUGH, and J. G. CLOUGH, Quincy, Ill. The invention has reference to machinery for working concrete and the like, the more particular purpose being to produce a concrete mixer especially adapted for continuously admixing concrete in successive charges of limited volume, The machine is to a great extent self-cleaning and is not liable to do any pounding.

REGULATOR FOR THE FLOW AND LEVEL OF LIQUIDS.—P. SUTHERLAND, La Luz, New Mex. The invention is particularly useful in devices used in irrigating channels, mining ditches and other water supply conduits. It provides a regulator which is absolutely automatic in operation, and which can be adjusted to operate and control the liquid body at different levels and at different rates of flow.

LATHE-HEAD.—G. F. FISHER, Torreon, Mexico. More particularly the improvement relates to the means employed for driving the chuck or face plate at any one of a plurality of different speeds. The intention is to provide means whereby the ordinary belt-driven lathe having a cone pulley may be converted into an all-gear lathe.

ROAD-MACHINE.—M. M. SICKLER, Pala, Cal. The supporting wheels are operated by gearing, particularly worm gearing, instead of by chains, and the various supporting wheels can be independently operated for steering the machine, and the bed may be raised or lowered, thereby achieving results on a hillside not ordinarily obtainable since the machine can be practically level upon a decided slope.

COUPON CUTTER AND COUNTER.—E. H. BARTOW, New York, N. Y. This device may be set to accommodate coupons of various sizes, and is adapted to sever or shear rapidly and evenly. The device has a visible dial upon which is registered each coupon as cut, and by means of which all the coupons may be gathered as cut, in a removable receptacle.

TYPE-WRITER RIBBON-SPOOL.—J. F. O'CONNOR, New York, N. Y. This improved typewriter ribbon spool is provided with a cast hub to which the flanges are riveted, thus permitting quick, convenient and accurate assembling of the parts without the aid of skilled labor, and thereby reducing the cost of manufacturing to a minimum.

Pertaining to Vehicles.

TIRE-ARMOR.—W. J. BELYEA, Port Huron, Mich. The invention relates particularly to improvements in a guard armor or protector for rubber tires of automobiles, although it may be used on rubber tires of other vehicles, the object being to provide an armor that may be readily placed over a tire and absolutely protect the same from wear or abrasion, and also enable the use of a brake directly to the tread of the wheel.

LOCK FOR CYCLES.—J. M. BARRETT, Fostoria, Ohio. The invention comprehends a lock mounted upon the framework of a bicycle and provided with a movable bolt adapted to project through the sprocket wheel, the bolt being so arranged that when in its normal position the bicycle cannot be used, the bolt being withdrawn from the sprocket wheel by aid of a key carried by the operator.

TRANSMISSION APPARATUS.—J. O. FORKER, New York, N. Y. The object of this inventor is to provide a mechanism whereby the rear or driving wheels of a motor vehicle can be placed thereon without in any way altering the motor vehicle, and the power from the driving of such wheels will be applied to a power transmission member such as a belt pulley.

LUGGAGE-CARRIER.—L. E. DRAPER, Santa Cruz, Cal. One of the objects in this invention is to provide an adjustable luggage carrier adapted to be mounted on a vehicle, for carrying trunks, bags, or other receptacles, secure against accidental displacement or loss, the carrier when not in use being adapted to be folded together.

ARMORED TIRE.—S. T. MOSER, Huntdale, N. C. The improvement is in that class of tires which are armored and in which an air tube of the usual design is contained within the outer tube. The aim is to provide a tire and means for protecting the air tube from puncture and also to provide means for preventing "skidding" or slipping of the wheel and further to increase the traction and prolong the life of the tire.

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.

NEW BOOKS, ETC.

TO AND FRO THE KEY TO LONDON. London: Simpkin, Marshall, Hamilton, Kent & Co., 1909. 12mo; pp. 343. Price, 6d.

Few people are aware of the many and valuable facilities of communication which await them in London, practically at their very doors, in the shape of the general public conveyances, and fewer still know how to completely avail themselves of these facilities so as to reach any part of the British metropolis with the greatest dispatch and comfort. The present volume is published with the object of enabling them to make full use of these advantages. Great strides have been made in the past year in effecting rapid transit in London, and the guide before us enables the best advantage to be taken of the opportunities afforded. The work of compiling a book of this nature is colossal, and the publishers can be congratulated on the production of a unique book.

LIFE IN THE NAVY. By Thomas Beyer. Chicago: Laird & Lee, 1909. 16mo.; 246 pp. Price, 25 cents.

This book is published by special authority of the United States Navy Department, and is indorsed by ex-President Roosevelt, Admiral Dewey, and Rear-Admiral Evans. It contains a vast fund of useful information which will prove of value to all who are in any way interested in the subject.

CATALOGUE OF A LOAN EXHIBITION OF RARE VIEWS OF OLD NEW YORK. New York: Lloyd Title Insurance and Trust Company, 1909. 12mo.; 53 pages; illustrated.

We are indebted to Mr. J. H. Jordan, the compiler, for this excellent monograph on the prints which were exhibited a few months ago at 160 Broadway, New York city. The idea of the exhibition was a most novel one and the exhibition attracted wide attention. The quality of the prints was of the very highest, and many of them were practically unique. The present volume is beautifully illustrated, and with a number of half-tone engravings showing the prints *in situ*. The book is beautifully printed on French deckle-edge paper. The present catalogue will be warmly welcomed by all collectors.

HOW TO COOK VEGETABLES. By Olive Green. New York: G. P. Putnam's Sons, 1909. 16mo.; 644 pages. Price, $1.

No more unique or welcome aid to a brain-fagged housewife can be imagined than this little series of handbooks in their plaid gingham covers, comprising such a large number of tried recipes. The book is beautifully printed on light-weight paper, and it is really a delight to handle it. There are directions for cooking asparagus in 45 different ways, beans 95 ways, cabbage 105 ways, celery 32 ways, chestnuts 19 ways, corn 87 ways, mushrooms 95 ways, although mushrooms are not really vegetable, but fungi. There are 20 ways of cooking the toothsome okra. There are 336 ways to cook potatoes, which is certainly a most remarkable showing. There are 100 ways to cook tomatoes, and 46 different ways to cook turnips. There are besides dozens of formulæ for what might be termed minor vegetables. The other volumes of the series deal with "What to Have for Breakfast," "Every-Day Luncheons," "How to Cook Shell Fish," and "How to Cook Fish." The series is worthy of a large sale.

THE EXPLORATION OF EGYPT AND THE OLD TESTAMENT. By J. Garrow Duncan, B.D. New York: Fleming H. Revell Company, 1909. 12mo.; 248 pages. Price, $1.50 net.

The present work is a summary of the results obtained by explorations in Egypt up to the present time, with a full account of those bearing on the New Testament. Many years of exploration in Egypt under the direction of Mr. Flinders Petrie have abundantly qualified Dr. Duncan to write on this interesting subject. Many readers will feel grateful to him for explaining the processes of exploration. His general plan of writing is at once popular and accurate. He speaks as an explorer on Joseph's granaries, the route of the Exodus, the treasure city of the Rameses and unearths many singular facts about them. The illustrations and drawings add a great deal to the vividness of the story, combining to give a book that has long been needed for the average reader.

ITALIAN HIGHWAYS AND BY-WAYS FROM A MOTOR CAR. By Francis Miltoun. Boston: L. C. Page & Co., 1909. 12mo.; pp. 380. Price, $3.

A delightful book, sumptuously printed and appropriately bound. The author is in love with his Italy, and makes a most entertaining book of it. He has visited many of the out-of-the-way places with which the peninsula is filled. The illustrations are particularly interesting and appropriate.

THE GEOLOGY OF THE CITY OF NEW YORK. By L. P. Gratacap. New York: Henry Holt & Co., 1909. 8vo.; 232 pages. Price, $2.50.

This is the third revised and enlarged edition, and is accompanied with 65 illustrations and 4 maps. There is no one better fitted to treat of this subject than Prof. Gratacap, whose long connection with the American Museum of Natural History has given him exceptional opportunities for the study of valuable material at first hand. The book is excellently made, and is well illustrated by half-tone engravings and diagrams. The facts presented and the statements have been brought together from many sources and have been classified. The book will certainly tend to develop and complete a correct geological conception of Greater New York. Mr. Gratacap is to be congratulated upon a highly successful scientific book.

GAS ENGINE THEORY AND DESIGN. By A. C. Mehrtens, M.E. New York: John Wiley & Sons, 1909. 12mo.; pp. 256. Price, $2.50.

It has been the aim of the author to prepare a book for all who are interested in gas engines—students, draughtsmen, engineers, as well as the men who operate gas engines of any kind, and wish to become better acquainted with the theory and the *why* of many things. The book should be of special interest to the technical student, and was, in fact, first prepared for the engineering classes at the Michigan Agricultural College, since no suitable textbook could be found. The reading matter throughout has been arranged carefully and with a definite object in view. The large number of figures illustrating the text have been made as simple as possible. It has also been the aim of the author to make the treatment clear and concise, and for this reason every paragraph should be studied—not merely read over.

AN HISTORICAL REVIEW OF WATERWAYS AND CANAL CONSTRUCTION IN NEW YORK STATE. By Henry Whalen Hill, LL.D. Buffalo: Buffalo Historical Society, 1908. 8vo.; 549 pages.

The present volume is a critical study dealing with various phases of the history of New York State waterways. Nothing of the character of the present work has been written before. The book, which is beautifully bound, is filled with papers and documents of all kinds. It is a most voluminous compendium of valuable facts which are particularly interesting at the present time when the subject of internal waterway construction in the Empire State is of paramount importance. The Hon. Mr. Hill is to be congratulated on the completion of so laborious a work.

THE LURE OF THE LAND. By Edith Loring Fullerton. New York: Long Island Railroad Company, 1909. 8vo.; 160 pages.

The present attractive work is a history of a market garden and dairy plot which were developed within eight months upon a most unfertile section of Long Island. The section was so bad that it was designated as "scrub oak waste." This work was carried on by the Long Island Railroad Company at Experiment Station No. 1. The author has also written a most valuable book entitled "How To Make A Vegetable Garden." Mr. and Mrs. Fullerton are well known as promoters of agriculture along the latest scientific lines. The book contains a graphic description of the work from the time when the underbrush was cleared and the stumps dynamited until the farm was in its full fruition and they were shipping "home hampers" to the city containing an assortment of fresh vegetables picked before daylight and delivered before dinner. The book is charmingly illustrated and describes the method of procedure which could be utilized in almost any territory. Tables and figures prove that agriculture is far from being either a profitless or dry occupation, with a celery crop at $330 to $1,000 per acre, Brussels sprouts at $500, asparagus at $550, gooseberries at $900, quinces at $1,500; and other attractive crops may be grown at similar profits.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending August 3, 1909,

AND EACH BEARING THAT DATE

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

Air governor, automatic, L. W. Baker	930,120
Amalgamator, R. Luckenbach	930,299
Ammonia gas from ammonia liquors, obtaining purified, C. M. Stine	929,726
Amusement apparatus, L. Collis	929,753
Anchor hook, guy clamp, and stretcher, G. F. Swortfiger	929,996
Animal fat product and making same, J. H. Filbert	929,926
Annunciator drop, B. W. Sweet	930,324
Antirattling device, J. J. Halladay	930,072
Arch, fire brick, E. P. Stevens	929,724
Atomizer for paint or the like, R. Reich	930,087
Automatic switch and signal, H. F. Roach	929,880
Automobile lever lock, D. N. Nester	929,783
Automobiles, gear changing mechanism for, F. Beemer	930,029
Axle coupling, reversible car, M. Markarian	929,771
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Bale identifying means, W. L. McCarty	929,691
Baling press, automatic, R. E. Rahm	930,083
Barrels, manufacture, O. Schubert	929,715
Bat making machine, D. Haynes	930,285
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Bed or box couch, H. J. Jacobs	929,855
Bed spring, adjustable, S. R. Hunt, Jr.	929,853
Bell, selective ringing magneto, B. W. Sweet	929,995
Belt for transmitting power, C. F. Gray	929,760
Billiard cue cutter, G. L. Lyman	929,681
Binder, J. D. Stow	929,893
Board. See Game board.	
Bolster, F. H. Davol, Jr.	930,051
Bolt anchor, expansion, H. W. Pleister	929,979