RECENTLY PATENTED INVENTIONS.

## Electrical.

Battery.-Frank M. Bell, New York City. This invention provides a primary battery wit and in which the negative plate may be recharged when exhausted. The battery has a negative plate formed of lead grill filled with peroxide of lead and provided with a perforated protecting covering of insulating materia anul amalgamated zinc positive plates suspended on op
povite sides of the negative plat:, the negsive and positive plates being immersed in an electrolyte, pr $\cdot$ erabl tive plates being immersed in an electrolyte, pr erably mercury. This battery generates no rumes, deposita no sediment, and there are no creeping salts.
Electric Conductor.-Gorham Gray Boston, Mass. This conductor is of metal formed with hard metal and projections of softer metal. The oute surfaces of the projections are corrugated, or formed with transverse grooves, and the metal surrounding the cor between
ridges.

## Mechanical.

Wood Turning Machine.- William T. Jones, New Weetminster, Canada. This invention is
for a machine for turning fish net foats, providing for sawing the proper length of wood from the stripan then automatically forcing it into position for turning. The machine has a series of ixed cutters, a rotary block rotating the blocks, a saw for severing the block from the strip, a reciprocating frame to operate a boring tool and other novel features.
Printing Press Dflivery Attach ment.-Mark N. Cormack, New York City. This invendesigned to deliver a folded sheet free from the smut or smear occasioned by the contact of the freshly printed sheet with the folder and delivery surface, also enabling the printer to readily inspect the work to discover any mperfect folding, blotches, etc., and to allow the ink The sheets are kept separate to allow the air to the entire surface and insure a rapid drying of the

Endless Band.-Leedham Binns merly patented invention of the same inventor providing a band for use as a driving belt for mill spindles, th band being very durable and strong and having its ter-
minal portions united in such manner as to render the band of approximately uniform thickness throughout tt is essentially a plaited tubular band containing a Allin mit of interlacing the ends, this also rendering tio band more darable than a band with a thickened join:
Motor for Vehicles. - James M. designed for auziliary propulsion, arranged to form brake and to accumulate power during the travel of drawn or propelled car, wagon or other vehicle on down grade, and to utilize this power for propelling pur poses when going up hill, etc. Th $\in$ invention comprise air compressor and copresed aireservoir consected with an air motor, and swinging wheels being adapted on the vehicle axle
Well Drillivg Machine. - Francis . Yearian, Rinard, Ill. This is a machine of compara noved from place to place on wheels, and in which con siderable power may be economically ohtained. Th rame is mounted on wheels and supports walking heam whose ends are connected by a head block baving open ing for a rope, a crank shaft having bearings in the rame, and there being connecting rods between the walk gg beams and the cranke. Duing transportation the frane.

## Miscellaneous.

Aerial Machine.-Jacob D. Gray iill, New Orleans, La This machine comprisee a gaa older and a car located within the framework of the as holder, while an air or vacuum chamber protects the car from gas on the front, back and top. It also has a ross shaft on ther being une ball-balanced crank arms, the being also adapted for use as sails when not employed to propel the machine, the winge being independ justable. The gas cnamber is preferably desig ed to hold ten thousand cubic feet of gas, and the machine

Machine for Measuring Cloth, Pa PER, ETc.-George W. Hyde, Richfield Springs, N. Y. sired length of material from an original roll and wind up the measured length inth a roll for the customer. The machine comprises a supporting frame, a swiuging od carrying the roll of material, a winding up spindle etachably mounted in the frame, a measuring roller one end in which one of the journals of the measuring oller is mounted, with other novel features.
Graphoscope.-Laurance H. Cohen New York City. In this graphoscope the pictures ay tion providing means for quickly placing in position rollers to which may be attached the tape, sheet or belt carrying the pictures, means heing also provided for urning either of the rollers so that the pictures may be wound readily from the right hand to the left hand tating device. The lene is so mounted on the frame as to be quickly and easily adjustable toward and from a picture, remaining firmly in adjosted position, while it sired.

Journal Bearing for Trucks. John E. Rogers, Dendron, Va. This is a box or bearing oor small tracks, and especially for dry kin trucks, con-
isting of a body or face plate and cylindrical box pro ecting laterally therefrom, with its outer end closen he lower edge of the plate, parallel to the box, all contracted integrally of cast metal. The bearing is held in place without the aid of screws, bolts or nails, a hole bing bored in the inner face of the beams and the bearing forced to place, which it retains by frictio with the
Can Soldering Machine.-Theodore . Phelps, Brewster, N. Y. This machine has a table arning on a column, a number or mandrels moving ith the table, a fixed able also carried by the colum nd two soldering irons held by the fixed table, while oward and from each other, and radially with reference to the axis of the moving table. The machine is comparatively simple and inexpensive and automatically solders the overlapping edges of the body, automaticall holding the can in position to be soldered, and discharg ing the soldered body from the mandrel on which it is
carried.
Vehicle Shaft. - Francois D. Bernier aris, France. In draught poles for vehicles, this inven解 is designed to diminish the liabinty 10 breakage in f novel construction, located on the tongue between he eye which receives the end of the holdbacis stra nd the iron to which is secured the back strap of the harness. The construction between these points is
thus made yielding to a large extent, so that the shaft is

Folding Bath and Wash Tub.-Her ann J. Gies, Peterborough, N. H. This is a combina ion device of simple and durable construction, taking up at little space when folded and not in use, and whic may be r eadily converted into a wash tub or bath tub, ance from one end, one of the pivote being tubular, and here is in the casing a tub with removable partition dividing it into two parts, a pipe leading from the bottom ipes being in the cha pressed door is hinged to the bottom of the tub at it

Key Guard.-Addison J. Lyon, Moun ernon, N. Y. According to this inveution a spring ontrolied stop is carried by a support on one side of the
 eyhole and admit of the insertion of a key while the epring returns the stop to its normal position afterwar ne device is readily applicable to any form of lock door will not be mutilated, the device being also entirel

Dumb Waiter Safety Clutch. harles B. Cox, New York City. To securely hold the cage in place in case of the breaking of the supporting
cope or cable, this invention provides for a vertical ro xed in the shaft, a casing secured on the cage being ormed with a guideway for the rod, while a clamping evice journaled in the casing is adapted to engage the the casing, a spring plate being co cage, and a staple being adjustably held on the spring late and connected with the supporting rope.
Banjo Bell-Albert H. Jarvis and Villiam J. McLean, New York City. A shallow bel ad of the banj and the continuation of the neck. The bell is place beneath the bridge of the banjo and has a comparatively large opening in its small ena, or it may also have the nnular section forming the sides of the bell perforate vice may be readily attached to or detached from a more distinct, the tone or timhre of the notea varying according to the material used.
Note.-Copies of any of the above patente will be end name of the patentee, title of invention, and date send name of
of this paper.

## NEW BOOKS, ETC

Hours with the Ghosts; or, Nine lustratéd in vestigations into the phenomena of spiritualisum and theose
phy. By Henry Ridgely Evans. Cnicago: Laurd \& Lee. 1897. Pp. 297
Price ${ }^{\text {si }}$. Price $\$ 1$.
The present work is by the anthor of the introduction our book, "Magic : Stage Illusions and Scientific Diversions, Incuading Trick Photography." It is an admirable expose of the devices of the pretended medium heir trickery. There has been a large number of works published upon this subject. but most of them have been trifing. catchpenny affairs. The present book ie a work of another order and will appeal to all who are interested in the occult. The illustrations are of great interest, revealing as they do the secrets of rope ying, slate writing, materializations, spirit photography, and the second part to Madame Blavateky and the theosophists. This is one of the best accountsever published of Madame Blavataky's life and work. It contains a synopsis of the theosophist's doctrines and sketch of the graphy of works on the subject. The author has had sittings with many famous neediums of this country and Europe, but has seen little to convince him of the fact of terializations have Invariably been frauds, and the author can be congratulated for the excellent way in which he unmasks these impostors. The book is well printed and is handsomely bound in Holliston cloth.
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Names and Address must accompany all letters
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seferences to former articles or answers should give date of paper and page or number of guestion.
Inquirtes not ansered in reasonable time should some anwers require not a will bear in mind that
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MInerals sent for examination should be distinctly
marked or labeled.
(7230) J. D. asks : 1. Is removal of superfluous hair by electricity successful? A. Yes.
How many volts and amperes are usually required $?$ How many volts and amperes are usually required $?$ A About 6 cells of carbon zinc battery. 3. Is the puncture cent 9 A Yes. See page 5ss " Medical and Surgical Electricity," by Beard and Rockwell, price $\$ 5.50$ by
(7231) W. D. S. asks (1) how to make electromagnet to lift 75 to 100 pounds 5 inches, with an volte, 10 amperes, and use the coil and plunger style A. The plunger should have the sectional area of $2 \cdot 5$ square inches. A round bar 1.8 inches in diameter wil have this area. It should be 18 inches long. The coil requires 2,400 taros of No. 9 B a S copper wire. 2. How new drill. Sharpen it, then heat it to a low red and plunge it in a solution of zinc chloride (ordinary soldering fluid). If the drill requires sharpening, always re harden after sharpening. 3. The price of S. P. Thompson's "Electromagnet." A. Silvanus P. Thompson's "The Electromagnet and Electromagnetic Mechanism" is 86 .


INDEX OF INVENTIONS
For which Letters Patent of the United States were Granted NOVEMBER 2, 1897,
AND EACH BEARING THAT DATE
[ See note at end of list about copies of these patents.)

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T. A. Valentine
Tarr.............

