RECENTLY PATENTED INVENTIONS. Engineering.

PROPULSION OF VESSELS.-John L. Helmolt, New York City. According to this improve ment side paddles of finlike construction are located near the stern and near the stem of the vessel at each side, the paddles having a hinged connection with a sliding support, and each set being adapted to move to and from the other set, the forward set making a stroke against the water while the rear set moves forward folded close against the sides of the vessel, and vice versa, the blades thus operating alternately to propel the vessel. Means are also provided for reversing the action of the paddles, to move the vessel backward, and the propelling mechanisms are equally balanced at each side of the vessel's hull, it being practicable to turn the vessel on its center.

Railway Appliances.

REFRIGERATOR CAR.—Charles S. Hardy, San Diego, Cal. 'This invention is for an improvement in cars provided with folding ice receptacles and covers better means of packing the folding parts of the ice receptacle and improved spatter devices for the drain fiue. The ice receptacle is composed of hinged sections, and is made water and air tight at all points except where openings are left for inlet and discharge, and the partition at the lower end forming the drain flue has rubber or other flexible material at its upper or inlet end, so arranged that the floor of the ice receptacle will normally seal itself to the drain flue by its own weight.

VOLTMETER. - Paul Brandt. Berlin, Germany. In order to avoid errors of voltmeters due to the remanent magnetism of the iron ore actuated by the solenoid, this inventor substitutes for the solid iron core hitherto used a sleeve of soft iron containing a bundle or cluster of wires, causing a mutual induction between the sleeve and the cluster of wires whereby the remanent magnetism of the sleeve is completely neutralzed. The soft iron sleeve, containing its bundle or cluster of wires, is actuated in the usual manner, being drawn into the spool or bobbin of the solenoid and suitably connected to an index or pointer.

Miscellaneous,

NASAL EXPANDER.—George B. Farmer, Perth, Canada. A spring yoke carrying on its free ends suction cups is, according to this invention, adapted to be readily inserted and applied to the nose, to properly expand the nasal wings and improve the passages for air inhaled to insure better breathing. Each of the cups has a hard center and annular flexible rim adapted to gently but positively engage the inner seriaces of the nasal wings.

MOVABLE TOY DEVICE. -- Axel L. Sjoberg, Union Hill, N. J. To impart a rapid or slow movement to toys or similar articles, this invention provides a device which may be contained in the article or in a casing forming a portion of the article. A counter-balanced winding shaft is journaled in a frame and a spring tension device is secured at one end to one side of the movable object, a guide at the opposite side of the movable object engaging a cord having one end connected with the winding shaft and the other end connected with the spring tension device. The winding of the device is accomplished by the motion of the article

BREAST FORM.—George M. McCleary, McKeesport, Pa. This is a pneumatic form with con vexed outer faces and provided with non elastic shaping bands holding the form close to the body. Shoulder straps and a girth are also provided, the latter having elastic sections, and being united at the back by a lacing and at the front by a clasp.

Designs.

THILL COUPLING PLATE.—Charles T. Redfield, Glen Haven, N.Y. This plate has a main portion slightly bowed at the middle, and at one end a wing at an angle and terminating in a notched flange, while at the opposite end is a shorter wing, also notched.

FLOWER HOLDER.—Stephen M. Griswold, Brooklyn, N.Y. This holder consists of twin loops, side by side, made of one piece of metal, a pin being pendant from one of the loops.

INCANDESCENT LAMP BULB. — Law-rence H. Dolan, Alexandria, Ind. This is a six-sided pear-shaped bulb, whose surface is covered with dia mond shaped facets.

Note.-Copies of any of the above patents will be furnished by Munn & Co. for 10 cents each. Please send name of the patentee, title of invention, and date of this paper.

NEW BOOKS AND PUBLICATIONS.

A MANUAL OF PHOTO ENGRAVING, CON-TAINING PRACTICAL INSTRUCTIONS FOR PRODUCING PHOTO ENGRAVED PLATES IN RELIEF AND HALF TONE. By H. Jenkins. Chicago, Ill.: The Inland Printer. Pp. 129. Price \$2.

A very practical book, beautifully printed, containing many illustrations of various styles of half tone work the frontispiece being especially rich, representing the perfection of tricolor work in a picture of a goldfinch bird, the red breast, blue head, and intermediate colors coming out most brilliantly. Preceding this page are pictures of the bird in yellow, a pink red, blue and a darker red, which, when superimposed over each other, give the re markable multicolored picture. There are directions for preparing the plates and their treatment, illustrations of the apparatus used and examples of different kinds of screen plates and diaphragms shown. It is a book easily understood, being based apparently on the results of actual experience, which is systematically classified and explained. It should prove a valuable aid to those desiring to be guided rightly in learning the elementary and practical points of the half tone process.

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(7122) J. C. H. says: Supposing a gas jet in a dweiling house is left open and gas escapes at the rate of five feet an hour. Would it be reduced by igniting the same? That is, would it lessen the pressure or speed of the gas, in passing the cock at the jet? If so, how much? A. The tendency of lighting would be to increase the flow by expanding by heat the aperture in the tip.

(7123) J. W. asks: Will you please inform me in the SCIENTIFIC AMERICAN how camphorated oil is made? Also, what book can you recommend on pharmaceutical preparations? A. Camphorated oil is prepared by dissolving 1 ounce avoirdupois of camphor in 42 ounces avoirdupois of cotton seed oil, or dissolve 1 ounce avoirdupois of camphor in 4 fluid ounces of olive oil. We can supply the following books on pharmaceutical preparations: "The Era Formulary," 5,000 formulas, price \$5. Beasley's "Pocket Formulary," price \$2.25. Griffith's "Universal Formulary," price \$5.50. "The Art of Compounding. A Reference Book for Pharmacists at the Prescription Counter," by Sco ville, price \$3 post paid.

(7124) C. H. W. asks: In a permanent magnet, there being a positive and a negative pole, will the negative pole repel the same object that the positive pole will attract? If so, is the field of repulsion of the negative pole of the same size and of the same inverse intensity as that of the positive pole? A. We answer the first query affirmatively. But the poles may vary considerably as regards the field of force in their vicinity. In other words, the polarization may be unsymmetrical.

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AND EACH BEARING THAT DATE.

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Fire kindler, E. Cook. Fireproof construction, A. R. Fordyce. Fish holder, L. D. Garnhart.	. 577,722 . 577,598	Sash weight, C. R. Mullen. Sausage filling apparatus, W. F. Schonland.	577,561 577,586
Waldemann	. 577,672	Saw set anvil, C. Morrill Scale, weighing, F. E. Mellinger.	577,559 577,516
Flues and flue pipes, device for cleaning, C. Com- stock.	. 577,80 0 . 577,647	Scrap chute and bundler, F. Berres Screen. See Window screen. Seal attachment, bottle, H. Bokelmann	577,640
Food product, J. Simmons	. 577,529 . 577,778	Seal attachment, bottle, H. Bokelmann Secondary battery, H. G. Morris Seeding machine, A. Lindgren. Separator. See Mineral separator. •re separa-	577,771 577,437
Smoke consuming furnace. Furnace charging and drawing apparatus, Berg &	ž.		
Dinkey	577,776	Sewing machine, G. A. Close. Sewing machine, vibrating shuttle, E. B. Allen Shafting hanger, B. Lobee. Sheet metal can, Hill & McKay. Sheet metal, pressure dies for corrugating. C. J.	577,689 577,552
Furnaces, hot water heating attachment for, C Smith.	577,695	Sheet met al, pressure ates for corrugating, C. J. Colling. Shelf bracket, T. Corscaden.	577,597 577,723
Furniture, adjustable support for school, J. H. Butler	. 577,594	Shirt, E. K. Edwards	577,501 577,648
Gage. See Track gage. Garment supporter. F. Kern.	. 577,757	W Lite	577,544 577,569
Gas, apparatus for increasing candle powerof, R. S. Lawrence	. 577,762	ding	
L. Teichmann. Gas, device for regulating quality of, Frost & Middleditch. Gas engine, L. H. Wattles.	. 577, 6 96 t . 577,739	Sieves, brush motion for gyratory, W. J. Stewart. Signal. See Electric signal. Skate, roller, J. A. Segerberg.	577,463
Gas generator, acetylene, Archer & Burrington.	. 577,700	I Slide pox. S. M. Bievens	577,819 577,412
Gas, means or apparatus for burning illuminat	. 577,677	Slot machine, C. F. Neubert	577,424

-5,97-3	
Smoothing andfinishing die, M. J. Glavin. Sole trimming machine, F. J. Freese. Spark arrester, J. T. Thompson. Spike making machine, Cromwell & Sundt. Spike puller, L. C. Powell. Spreading liquids over sheets of paper, etc., machine for, J. Heim. Spring head, vehicle, G. H. Hawes. Stalk cutter, G. W. Evridge. Stand. See Percolator stand. Steam trap, N. Nilson. Steering gear, W. Tuttle. Stereopticon, automatic, W. L. Veley. Stirrup detaching device, P. Wagemann. Stitching machine, bag, T. B. Fuller. Stove, camp or army, O. D. Hunt. Stove, camp or army, O. D. Hunt. Stove grate, W. Thompson. Stove or rungae grate, S. Smyth. Stove or range, M. M. Koch. Switch. See Automatic switch. Car switch. Rail way switch. Svringe, F. Eissner.	577 577
Sole trimming machine, F. J. Freese	. 577,738
Spark arrester, J. T. Thompson	577,796
Spike puller, L. C. Powell	577,783
chine for, J. Heim	. 577,683
Spring head, vehicle, G. H. Hawes	577,428
Stand. See Percolator stand.	011,101
Steam trap, N. Nilson Steering gear. W. Tuttle	577,623 577,7 9 7
Stereopticon, automatic, W. L. Veley	577,469
Stitching machine, bag, T. B. Fuller	577,740
Stopper. See Bettle stopper.	577 619
Stove, gas, L. Kahn	577,513
Stove grate, W. Thompson	577,467
Steve or range, M. M. Koch	577,557
way switch.	
Syringe nozzle, H. H. Bennett	577,622
Teaching melodies, apparatus for, F. N. Steffens	577,667
Telegraphy, submarine, A. Muirhead	577,534
Thermoscope, W. G. Looser	577,439 577,417
Thresher and separator, grain, S. R. Rogers	577,608
feeder. Eddy & Jones	g 577,731
Ticket, divisible passenger receipt and audito	r 577 622
Tie. See Bale tie. Railway tie,	597 400
Tire, bicycle, M. A. Sancho	577,634
Tire bolt wrench, E. A. Rich	577,451 577,698
Tires, method of and implement for patchin	g = 777 CO1
Toothpick, H. T. Tissington	577,468
Track gage C E Irwin	577,730 577,530
Transplanter, A. Speil el.	. 577,539
Steve or furnace grate, S. Smyth. Steve or range, M. M. Koch. Switch. See Automatic switch. Car switch. Rail way switch. Syringe, F. Eissner. Syringe nozzle, H. H. Bennett. Teaching melodies, apparatus for, F. N. Steffens Telegraphy transmitter, H. A. Taylor. Telegraphy submarine, A. Muirhead. Thermoscope, W. G. Looser. Thill coupling, J. W. Buchanan Thresher and separator, grain, S. R. Rogers. Threshing machine band cutter and distributin feeder, Eddy & Jones. Ticket, divisible passenger receipt and audito coupon railway, H. P. Mussen. Tie. See Bale tie. Railway tie. Tilting case or crate, G. W. Banker. Tire, bicycle, M. A. Sancho. Tire bolt wrench, E. A. Rich Tire valve, pneumatic, D. E. Walker. Tires, method of and implement for patchin pneumatic, C. E. Green. Toothpick, H. T. Tissington. Toy, L. A. Eberhardt. Track gage, C. E. Irwin Transplanter, A. Speil el. Trap See Animal trap. Steam trap. Traveling case and baby carriage, combined, F. S. Kratzet. Trolley, electric railway, H. N. Gale. Truck, Car, M. G. Hubbard, Jr. Truck, Lumber, Ulman & Emerson. Typewriter cabinet, W. P. Yakeley Umbrella, R. P. Knapp. Upholstering, means for making plaited work ir H. B. Pitner. Valve, explosive engine, E. L. Teubert. Valve, hydrant, H. Pichler. Valve, hydrant, H. P. Brown. Vehicle, motor, E. D. Cross. Vehicle do, J. W. Wilder. Velocipede driving mechanism, F. J. A. Kinder mann. Venting device, G. W. Banker.	·
Trolley, electric railway, H. N. Gale	. 577,741
Trough. See Feed trough.	577 609
Truck, W. H. Ward	577,471
Truck, car, M. G. Hubbard, Jr Truck, lumber, Ulman & Emerson	577,481 577,798
Typewriter cabinet, W. P. Yakeley	577,703
Upholstering, means for making plaited work in	5/1,020 l,
Valve, explesive engine, E. L. Teubert	577,809 577,589
Valve, hydrant, H. Pichler	577,519
Vehicle door construction, C. A. Warren	577,799
Vehicle, foot propelled, G. G. J. Millar Vehicle, motor, L. Brown	577,826 577,716
Vehicle top 1 W Wilder	577,572
Velocipede driving mechanism, F. J. A. Kinder	-
Wenting device, G. W. Banker	577,621 577,410 577,678 577,558 577,528
Voltmeter, P. Brandt Warner's beam I Mills	. 577,678 577,558
Washbasin supporting device, W. Kachler	577,528
Washing machine, J. H. Doub	577,422
Water, purifying, H. B. Furness	. 577,729 577,422 577,806 . 577,719 577,817
Welding copper upon steel or iron, J. Burns	577,817
oil, G. P. Tadder	. 577,812 . 577,811
Wells, removable plug for oil, G. P. Tadder Wheel. See Metal wheel.	. 577,811
Whiffletree hook, M. M. Sanderson	. 577,453
Window screen, E. E. Monroe	577,495 577,690 577,617
Wire stretcher, W. W. Hendricks	577,617
Woodworking machine I M Nach	577,754 577,492
Vehicle top, J. W. Wilder. Vehicle top, J. W. Wilder. Velocipede driving mechanism, F. J. A. Kinder mann. Venting device, G. W. Banker. Voltmeter, P. Brandt. Warper's heam and weaver's beam, J. Mills. Washbasin supporting gevice, W. Kachler. Washing machine, J. H. Doub. Watch bew fastener, H. F. Cook. Water, purifying, H. B. Furness. Weather strip, A. P. Chilson. Weiding copper upon steel or iron, J. Burns. Wells, appliance for unscrewing casings down iol., G. P. Tadder. Wells, removable plug for oil, G. P. Tadder. Wheel. See Metal wheel. Whiffletree hook, M. M. Sanderson. Window screen, E. E. Monres. Winder westerching and splicing device, G. K. Jackson. Woodworking machine, J. M. Nash. Wrapping, folding and sealing circulars, machin for, R. A. Carter. Wrench. See Chain wrench. Monkey wrench.	e
Wrench. See Chain wrench. Monkey wrench	577,418 1.
wrapping, found and seating circulars, machin for, R. A. Carter	577,770
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DESIGNS

DESIGNS.	
Advertising fly net, H. D. Gaines	26,60 26,60 26,60
Box, wooden vial, W. C. Estes	26,69 26,67 26,67
Cartridge shell, solid head, J. Gardner. Chain, P. J. Duerr	26 66
Crate tray, berry, D. E. Smith Dental tool for carrying amalgam, J. W. Ivory Fabric, S. R. Ogg	26,68 26,67 26,68
Form, dress, L. E. Hacherelle. Hook, metallic spring, F. L. Faatz. Lamps, etc., shade for, M. R. Littell. Rubber quarter boot, W. B. McDonald.	26,67 26,67 26,69
Sash, car window, S. S. Bradshaw. Spoon, G. R. Pohl. Teel, compound, O. Aberer. Tug holder, H. Hamman.	26,66 26,67 26,68
Valve casing, Railton & Campbell	20,68

TRADE MARKS.

Aperient waters, their salts and medicinal prepa-	
rations containing such salts, natural, E. Sax-	
lohnor	29 507
lehner	20,500
Daking powder, Tillmann & Bender	40,000 00 FDO
Beer, Acme Brewing Company	29,599
Beer, lager, A. H. ZieglerBicycles and similar vehicles, H. J. Young	29,600
Sicycles and similar vehicles, H. J. Young	29,609
Bicycles, velocipedes, their parts and attachments,	
Tourist Cycle Company	29,608
Candy, chewing, American Molasses Candy Com-	,000
pany	29,596
Cassimeres, Middlesex Company	29,578
Porgote U W I von	29,575
Corsets, H. W. Lyon Disinfectants, Hance Brothers & White	20,010
Disinfectants, Hance Bruthers & White	29,610 29,533
Feed, animal, Freeman Milling Company	43,000
flour, aged glutinous, E. A. Smith	29,594
lour, wheat, Freeman Milling Company	29,591
Foods, beverages and condiments, certain named,	
J. F. Humphreys & Company	29.592
Glue, liquid, E. J. Mills	29,601
Hair crimping pins, J. Battles Hose hydraulic or fire, Eureka Fire Hose Com-	20 584
lose hydranlic or fire Enrets Fire Hase Com.	NO 900 A
none my diamic of bie, buleka Fire 1198e Com-	29.579
pany Luting, cement or putty, non-hardening elastic,	49,019
Luting, cement or putty, non-nardening elastic,	00.000
F. O. Pierce	29,603
Medicines and surgical instruments, certain named, A. E. Burns. Nail pullers, Maltby, Henley & Company Needles, Excelsior Needle Company	
named, A. E. Burns	29,587
Nail pullers, Maltby, Henley & Com pany	29,605
Needles, Excelsior Needle Company	29,585
Paints, Harrison Brothers & Company	29.602
Paints, James E. Patton Company	29,611
Paper cutters, roll, American Roll Paper Com-	,
nonv	29,606
pany	23,000
Stevensen Company	29,604
Demodica for pulmentary discours including pills	23,004
Remedies for pulmonary diseases, including pills,	00.508
Lester H. Greene Company	29,587
Ribbons, velvet and satin, Vischer & Company	29,576
Soap, Petrolia Manufacturing Company29,581 to	29,583
Spices, Tillmann & Bendel	29,589
Starch, laundry, T. Kingsford & Son	29,595
Starch. laundry, T. Kingsford & Son Surgical instruments and appliances, Kny-	,
Scheerer Company	29,586
Poilet waters, Piver & Cie	29 580
Wine, claret, J. M. Vergnole	24 500
Woolen cloth. Middlesex Company	20,000
W wolch closu, bildulesea Company	40,011

PRINTS.

"Cut No. 567, G. V.," I. E. Palmer...... 4

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1863, will be furnished from this office for D cents. In ordering please state the name and number of the patent desired, and remit to Munn & Co., 361 Broadway, New York. Special rates will be given where a large number of copies are desired at one time.

Canadian parents may now be obtained by the inventors for any of the inventions named in the foregoing list, provided they are simple, at a cost of \$40 each. If complicated the cost will be a little more. For full instructions address Munn & Co., 32 Broadway, New York. Other foreign patents may also be obtained.

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Programme.

HOME ENTERTAINMENT.

Part First.

I. PIANO SOLO, Princess Bonnie Waltz
2. SONG-Tenor Solo, Tramp, Tramp, Tramp, By Geo. J. GASKIN.
3. BANJO SOLO, Tramp, Tramp, Tramp, Tramp, Gaskin.
4. SONG-Baritone Solo, Starlight, Starbright By J. W. MYERS.
5. RECITATION, Imitation of a Street Fakir By GEO. GRAHAM.
6. MALE QUARTETTE—Medley, Mary Ann
7. SONG-Plantation Shout, Bye, Bye, Ma Honey By BILLY GOLDEN.
8. CORNET DUET, Short and Sweet
9. SONG, The Mary Ann
9. SONG, GRANNINI.

Part Second.

11. SONG—Tenor Solo, — Down in Poverty Row By GEO. J. GASKIN.

12. MALE QUARTETTE—Negro Song, Hear dem Bells

13. RECITATION—Poem by Eugene Field.

14. DRUM AND FIFE (Descriptive), Spirit of '76

15. SONG—Baritone Solo, I Want Yer, Ma Honey By DAN W. QUINN.

16. RECITATION, — Side Show Orator By GEO. GRAHAM.

 SONG -(M. Farkoa's Great Success, French Laughing Song)
 SONG -Baritone Solo, Say Au Revoir, But Not Good-bye By J. W. MYERS.

You will find our number for each selection in the list of our Records.

THESE people are certainly enjoying themselves, and no wonder, for they at listening to one of the most varied entertainments ever given in a private parlor. They were first, as you will perceive by the accompanying programme, entertained by a piano solo. They then listened to a popular and patriotic song. The next selection was a banjo solo, and after that a song by the baritone, J. W. Myers, "Starlight, Starbright;" then a recitation, "The Imitation of a Street Fakir." This was followed by a male quartette. Then came the very popular and famous Billy Golden with his plantation song, "Bye, Bye, Ma Honey;" following that a cornet duet, and then the French national song, "La Marseillaise," by Signor F. A. Giannini.

We have introduced in this advertisement the whole programme as rendered at this evening's "Home Entertainment;" each selection was a reproduction of the original. You listen to the quality and strains of the cornet; you absolutely hear the picking of the banjo, while the quartette singing and the solo singing are the natural reproductions of the real artists.

So true to life are these reproductions that if you were to come into the hall and see the people gathered together and yet not know that the evening's entertainment was given by a reproducing or, as it is perhaps better known, a talking machine, you would really never know it unless you had a chance to enter the room.

This special talking machine, the Berliner Gramophone, is the newest and the best. Its results are better than those of the regular \$100 talking machines. We have made this result possible because of the discovery of a new way to record sound. It is recorded upon a flat disk and finally placed upon hard rubber, which makes it indestructible, very easy to handle, and, for the first time, thoroughly adapted for family use. These disks cost 60 cents singly, or \$6 per dozen, and as the variety is almost unlimited, you can have a never failing source of pleasure and entertainment. Great men and great artists will be recorded, and you will thus be able to hear, in your own home, people of national and international reputation.

There is no musical instrument that the **Gramophone** does not reproduce. This spring motor machine, which runs by clockwork, we sell for \$25, express prepaid to any point east of the Rocky Mountains. To points beyond we allow Denver express rates. Two records are included with each machine.

We guarantee Perfect Satisfaction, and will return your money, less express charges, if it is not satisfactory. It winds easily, weighs only fifteen pounds, and has the great advantage of being always ready for use, because its power is within itself.

We have two other styles for \$10 and \$15; the \$10 machine is run by hand, and is furnished with ear tubes for two people to hear. The \$16 machine is also run by hand, but is supplied with a governor, so that the speed is regulated, and after it is turned as fast as necessary cannot be turned any faster. This makes the hand machine sure to give you a good reproduction, even in the hands of a novice.

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National Gramophone Company, = 894 Broadway, New York City

See first page Scientific American of May 16, 1896.