are prominently displayed, whether the book is closed or open.

TRUNK. — William S. Foster, Dallas, Wis. The shell of this trunk is cylindrical, and has rims, so that the closed trunk may be conveniently rolled about on the floor or ground. Mounted to turn in the shell is a cylindrical compartment box with partitions at right angles to each other, the partitions forming two sets of compartments, one set provided with lids and the other with straps. The shell is made in two hinged sections, and when these are opened one half of the com partment box is disclosed. By turning this box on its trunnions all of the compartments are successively brought to the top, as required, for packing or removing goods.

BAG.—William H. Field, Port Chester, N. Y. A strong and very cheap bag is made by this inventor, for carrying coal, etc., by forming the bag with a double bottom and relatively light sides, flat handles on the sides at the top connecting with the double bottom in such way that the bag will withstand the strain and may be easily carried.

DISPENSING LIQUORS, ETC. — James Tomlinson, Granby, Canada. This is an apparatus for registering the amount sold, and consists of reservoirs in a case, each having a discharge pipe terminating in a faucet provided with a filter, induction pipes being graduated to show the level of the liquor in the reservoir. Tell-tale tubes connected with the faucets are curved at their upper ends and provided with cups for receiving any liquor that may be forced out of the pipes. The invention covers three forms of register, one for the drachm or glass only, one for wine measure only, and one combining both the drachm and wine measure scales.

BOTTLING MACHINE.—August Werner, Brooklyn, N. Y. Connected with the storage cask are a liquid supply pipe and a gas supply pipe, while a bottle-filling valve of especial construction is connected with the bottle, the liquid supply pipe, and the gas supply pipe, in such manner that on first opening the valve plug the gas passes into the bottle to drive out the air, and on further opening the valve the air escape is cut off and the bottle filled with the liquid, the gas in the bottle receding to the storage cask. The machine is comparatively simple and fills beer and other liquids into sterilized bottles without waste, and so that the beer will retain its valuable properties without danger of spoiling.

ICE SHAVER AND PICK.—William M. Seaman, Goldman Landing, La. This shaver comprises a casing having a slotted bottom, a cutter projecting an adjusted distance through the slot, and a hinged cover having on its pivot end an extension within the casing, to push the accumulated ice forward on opening the lid. The casing forms a handle for a pick of the ordinary kind, which is removably secured to the casing by a wing nut.

ICE CREAM FREEZER. — Edward L. Weston, Washington, D. C. Two or more kinds of cr am can be frozen at once in this freezer, with no greater labor than that of freezing one kind in an ordinary freezer. Independent freezers or cylinders are located in a single tube, surrounded by the necessary ice, and the handle shafts are journaled in a shaft frame, the shafts being geared and a detachable coupling employed by which the sections may be locked together or freed to move independently.

GARMENT FITTING PATTERN.—Simon Christiansen, New York City. Two patents have been granted this inventor under this title, both showing improvements upon a former patented invention of the same inventor. One patent provides a plate of flexible material, with angular edge, the plate having a border incision to form a flexible edge strip connected at one end only, tabs connected to the strip to be adjusted toward and from the plate, while other tabs are also adjustably secured to the plate and carry a flexible marginal strip. According to the other patent the pattern plate has an edge with angular outline, and pivotally secured to its outer edge is a series of independent articulated links extending outwardly, each consisting of a plurality of pivotally connected members, a flexible strip being connected with the outer ends of the outer members, whereby any portion of the strip may be moved toward or from the plate. The improvement is designed to facilitate taking correct measures, and enable the operator to at once cut the material from the pattern.

SLEEVE PATTERN.—This is a further patent of the same inventor for an improvement facilitating the taking of the proper measure of the arm and the convenient cutting of the material into upper and under sleeve parts. The pattern comprises a series of sections in sets of two pivotally connected by links, and also pivotally connected with each other, a rod engaging the several pivotal connections, while a second rod held on one of the pattern sections has a sliding connection with the first rod. No especial skill is required in using the pattern to obtain simultaneously the proper shape of both the upper and under sleeve parts.

UNDER COAT SLEEVE HOLDER. — James Hoffman, New York City. This is a device for holding a coat sleeve close to the cuff while an overcoat is being put on, preventing the sleeve of the under coat from slipping upward. It consists of a curved body plate having one end upturned to form a hook, an elastic with double loops being fastened to the plate. The device is quickly applied and may be folded to occupy but little space in the pocket.

ANIMAL TRAP.—John Ross, Halifax, Canada. This is practically a double trap, and has provision for holding animals at each end. It has doors on its upper side near the ends, and downwardly inclined gates beneath the doors, in connection with tubular end sections in which are sliding pistons to forcibly eject animals through the doors. There are trap doors in the top, upon which tilting platforms mounted on the top of the box deliver, a bait rod sustaining bait near the platforms.

ANIMAL TRAP. — Charles A. Snow, Lime Springs, Iowa. This trap when sprung actuates a knife which kills the animal, the trap afterwards resetting itself. It is made with a cylindrical case, cut away in front and slotted to allow for the swing or revolution of a knife, spring actuated, but held normally stationary by a trigger, below which is a tilting platform adapted to be depressed by the weight of the animal. On the depression of the platform the trigger is disengaged and the knife swings around, the trigger being then again in position to engage its shank, while the knife kills the animal and sweeps him from the platform during its revolution.

GAME APPARATUS. — William A. Barnes, New York City. This is an apparatus for use in connection with billiard, pool, or bagatelle tables. The balls are set up on the table in substantially circular arrangement, and then inclosed by a ring of tissue paper or similar mat rial and covered by a piece of cardboard, or other substance, that the numbers on the different balls may not be seen. With the impact of the cue ball the paper envelope is broken and the balls scattered over the table, and if any drop into a pocket, the player holding a similarly numbered small ball, of those previously distributed, wins the game.

DOLL. — Frederick B. Schultz, New York City. This is an improvement in jointed dolls previously patented by the same inventor, the present invention providing a doll in which the articulated members can be readily turned without danger of breaking or dislocating the jointed parts. The parts are joined by ball and socket joints, and an individual chain is used for each articulated member, each chain being provided with yielding devices to permit of exerting pulls on the parts of the members, and also permit of turning them.

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(6263) J. D. F. says: Please tell me how to color old gun barrels where the color has worn off. Want blue and brown. A. Bluing barrels.—The bluing of gun barrels is effected by heating evenly in a muffle until the desired blue color is raised, the barrel being first made clean and bright with emery cloth, leaving no marks of grease or dirt upon the metal when the bluing takes place, and then allow to cool in the air. It requires considerable experience to obtain an even clear blue. Browning guns.—The following recipe for browning is from the United States Ordnance Manual: Spirits of wine, 1½ ounce; tincture of iron, 1½ ounce; corrosive sublimate, 1¼ ounce; sweet spirits of niter, 1½ ounce; blue vitriol, 1 ounce; nitric acid, ¾ ounce. Mix and dissolve in 1 quart of warm water and keep in a glass jar. Clean the barrel well with caustic soda water to remove grease or oil. Then clean the surface of all stains and marks by emery paper or cloth, so as to produce an even bright surface for the acid to act upon, and one without finger marks. Stop the bore and vent with wooden plugs. Then apply the mixture to every part with a sponge or rag, and expose to the air for twenty-four hours, when the loose rust should be rubbed off with a steel scratch brush. Use the mixture and the scratch brush twice, and more if necessary, and finally wash in boiling water, dry quickly, and wipe with linseed oil or varnish with shellac.

(6264) E. R. asks: 1. Upon our ranch we have a hydraulic ram which forces water for domestic purposes into a tank 30 feet high. The ram is fed from an artesian well and the water has a fall of 24 inches to it. Every six or seven months, the air chamber becomes so filled with water that it scarcely operates until the chamber is removed and water allowed to escape. When the chamber is in that condition, the valve in operating pounds very hard, as though it was striking something solid. What causes the chamber to fill with water? A. The air in the air chamber is absorbed by the water under pressure, when the water having no air cushion and being non-elastic produces a sharp concussion of the valve as observed. The air chamber should have an air cock at the bottom to let out the water and allow air to draw in when the air in the chamber has been absorbed. 2. Can I make an earth battery in the following manner. First dig a deep trench in moist earth, then stand a copper plate 4×4 feet upright in one end of the trench, then a zinc plate, same size, a short distance from the copper, and so on, copper and zinc alternately, indefinitely; the space between the plates to be filled with moist earth? Would the current become stronger if salt deposits were made between the sheets of metals? A. This will make an earth battery if you connect all your zincs together and all your copper plates together. No zinc and copper must touch. The battery will be very feeble, and will if used soon polarize. No reliable calculation of its power in watts can be given. Salt water poured on the surface would increase the power.

(6265) J. M. S. asks if there is any way of prolonging the life of a fish 20 or 24 hours in a small quantity of water sufficient to cover them in a bucket. If the matter consumed by them to retain life could be artificially supplied, and if so how? A. Fish may live for several days in a very small quantity of water if it is aerated sufficiently to keep up the supply of air drawn from the water by the fish. A small tube reaching to the bottom of the pail and air blown into the water by a bellows for a few minutes, every few hours is all that is necessary. A very little food only is required, so as not to contaminate the water by the dissolved food.

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Routing machine, Schraubstadter, Jr., & Schilling 527,025
Sad iron handles, machine for making, J. Banwell 526,672
Saddle, harness, H. Lane 526,716
Sand papering machine, C. L. Ruebs 526,845
Sash balance, J. Sauerburger 526,945
Sash fastener, U. A. Hoyt 526,863
Sash holder, J. Weldon 526,764
Scraper attachment, wheeled, A. F. Bernard 526,677
Scraper, wheeled, A. F. Bernard 526,676
Scraping machine, earth, A. F. Bernard 526,675
Screen. See Food screen.
Shafting hanger, J. W. Hyatt 526,710
Shears, Nicker son & Keller 526,814
Ships, construction of, S. Stuart 526,823
Shoe fastener, I. D. Wright 526,956
Shutter fastener, R. McNab 526,729
Sign, endless, J. M. Long 526,905
Sleigh, bob, S. C. Paulson 526,938
Spark arrester, H. Bell 526,828
Spindle centering device, G. O. Draper 527,015
Spoke sawing machine, Fry & Walker 526,699
Spool box, C. Tollner 526,876
Spring. See Trolley spring.
Spring, P. N. French 526,895
Square, G. G. F. Boswell 527,035
Stamp, time, J. J. Busenbenz 526,804
Steam boiler, J. E. Schlieper 526,947
Steam trap, O. Gassett 526,862
Steering gear, vessel, D. M. Maxon 526,930
Stethoscopic instrument, R. C. M. Bowles 526,502
Stool, milking, C. J. Blakley 526,916
Stopper. See Bottle stopper.
Stove ash-pit mould, Kahn & Moore 526,904
Stove boards, manufacture of, Schultz & Westlake (r) 11,444
Stove, gas, Robertshaw & Cooper 526,791
Stoves or ranges, oven door for cooking, F. V. Knauss 526,974
Street sweeper, G. B. Siccardi 526,794
Structural material, manufacturing, E. M. Butz .. 526,804
Switch. See Electric switch. Electric snap switch. Railway switch.
Switch working mechanism, C. L. Lincoln 526,979
Table. See Draughting table.
Teething ring, M. L. Metzger 526,932
Telegraph key and sounder, combined, P. D. Cox. 526,965
Telephone, H. W. Libbey 526,865
Telephone transmitter, M. O. Anthony 526,888
Thill coupling, R. & E. Brent 527,010
Thill support, J. E. Dolber 526,691
Thrashing machine, pea, C. E. Paterson 526,869
Tire heater, Liefbroer & Tendollen 526,977
Tire, pneumatic, C. K. Welch 526,882
Tires, armor for pneumatic, S. M. Schindel 526,846
Trace fastening, P. Brown 526,681
Trap. See Steam trap.
Trap, H. T. Bush 526,991
Traveling cases, fastener for telescopic, J. B. Duguid 526,829
Trolley guard, H. J. Tanner 526,756
Trolley spring, J. L. Hanson 526,705
Trolley wire hanger, J. J. Green 526,704
Trousers stretcher, M. J. Weeden 526,953
Truck, baggage, J. M. Frysinger 526,698
Truck, barrel, J. L. Hamilton 526,809
Truck pedestal and axle box, car, E. Cliff 526,857
Trucks, center bearing for car, W. Robinson 526,844
Type holder, R. A. Stewart 526,822
Typewriting machine, L. P. Diss 526,894
Typewriting machine, J. Felbel 526,774
Valve, engine exhaust, L. H. Wattles 526,761
Valve, engine reversing, T. B. Headen 526,707
Valve, gate, L. S. Wheaton 526,797
Valve, steam engine, W. G. Shepherd 526,847
Vehicle, two-wheeled, W. F. Valentine 526,952
Velocipede, W. C. Foster 526,775
Velocipede, ice, G. Riexinger 526,745
Vent fitting, O. Schlemmer 526,912
Vessels, means for raising sunken, E. M. Arnold . 526,959
Vessels, means for raising sunken, J. A. Bisceglia 526,800
Vise, G. Siller 526,753
Watch mainspring barrel, C. Morlet 526,935
Watch winding, S. Schisgall 526,871
Water closet, J. Campbell 526,891
Watering device, stock, R. M. Sanford 526,911
Well drilling apparatus, S. A. Horton 526,708
Wheels, suspension rim for vehicle, E. B. Killen . 526,713
Whistles, non-condensing apparatus for steam, J. G. Harmes 527,000
Windmill tower, S. A. Rouse 526,793
Window or door button, F. P. Rawdon 526,843
Wire stretcher and staple puller, combined, G. H. Wilber 527,008

DESIGNS.

Billiard table cushion rail bolts, covering plate for, M. Bensinger 23,670
Brushes, etc., back for, C. C. Wientge 23,668
Cigar boxes, ornamental pattern for, S. D. George. 23,669
Column, A. A. Fenn 23,678
Dust pan, M. C. Payne 23,676
Engine, pistol grip, P. Chouteau 23,679
Lamp base, J. C. Miller ..... 23,672 to 23,674
Lamp chimney, W. J. Patterson 23,675
Lamp fount holder, Miller & Schmitz 23,671
Lever, hand, N. Du Brul 23,680
Pen rack stand, J. M. Keep 23,677
Wall paper, L. Clemencet ..... 23,662 to 23,666
Wall paper, M. G. Hatch 23,667

TRADE MARKS.

Bitters, vegetable, E. N. Bates 25,295
Buttons, pins, and charms, gold, C. L. Rost 25,279
Cement, Portland, Lagerdorfer Portland Cement Fabrik von Eug. Lion & Company 25,298
Cheese, La Societe des Caves et des Producteurs Reunis 25,285
Clothes pins, Howells, Moffitt & Company 25,302
Clothing for men and boys, Greenewald & Company 25,283
Collars and cuffs made of pyroxylin materials, Fiberoid Company 25,280
Condensers, steam engine, Geo. T. Blake Manufacturing Company 25,304
Corsets and gloves, J. Lichtenstein & Sons 25,281
Fertilizers, L. Sanderson 25,299
Flour, wheat, Norton & Company 25,286
Gum, chewing, Chattanooga Medicine Company .. 25,284
Hardware, certain named, Marshall-Wells Hardware Company 25,305
Knit underwear, Hay & Todd Manufacturing Company 25,282
Liniment for horses and other animals, G. W. Pomroy, Jr. 25,290
Mineral water, natural, M. V. Saunders 25,296
Music, powder to facilitate the execution of, L. H. Gunnerman 25,301
Oils, lubricating, W. H. Crossman & Brother 25,297
Remedies for purifying the blood, internal, F. Oxnard 25,294
Remedy, cough, Stuart Medicine Company 25,292
Remedy for certain named diseases, tonic, Lange Tonic Company 25,291
Remedy for diseases of horses, H. L. Lohmeyer ... 25,289
Roach powder, G. Rolke 25,300
Seed, clover, Gillett & Hall 25,287
Tablets for the cure of heart disease, W. W. Lacey 25,293
Veterinary remedies, G. B. Stewart 25,288
Water wheels, James Leffel & Company 25,303

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