are prominently displayed, whether the book is closed or | front and slotted to allow for the swing or revolution of 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

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

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 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

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 sieeve 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 13. The Temple of Neptune at Paestum. the several pivotal connections, while a second rod 14. Miscellaneous Contents: Mahogany pavement.—Pro. chamber is removed and water allowed to escape. When 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 pro- Edition is issued monthly. \$2.50 a year. Single copies, vision 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

Animal Trap. - Charles A. Snow, Lime Springs, Iowa. This trap when sprung actuates a of any Architectural Publication in the world. Sold by knife which kills the animal, the trap afterwardresetting all newsdealers. itself: It is made with a cylindrical case, cut away in

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

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 card-board, 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

Note.-Copies of any of the above patents will be furnished by Munn & Co., for 25 cents each. Please send-name-of the patentee title of invention, and date of this paper.

## SCIENTIFIC AMERICAN BUILDING EDITION

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- 1. Elegant plate in colors showing a Colonial residence at Plainfield, N. J., recently erected for B. A. Hegeman, Jr. Two perspective elevations and floor plans, also an interior view. Cost \$6,000. A pic turesque design. Mr. Frank W. Beall, architect New York City.
- 2. Plate in colors showing a very attractive stone dwelling recently erected for H. J. Peet, Esq., at Buena Park, Ill. Two perspective elevations and floor plans. A pleasing design. Mr. J. L. Silsby, architect, Chicago, Ill.
- 3. A dwelling at Bridgeport, Conn., recently erected for Frank Fowler, Esq. Two perspective elevations and floor plans. Cost complete \$5,600. Mr. A. H. Beers, architect, Bridgeport, Conn.
- 4. A cottage at Stratford, Conn., recently completed for Robert Wheeler, Esq. Perspective elevation and floor plan. A unique design presenting pleasing elevations and a well arranged plan. Cost \$6,200 complete. Mr. Edgar Osborne, builder Stratford, Conn.
- The residence at Belle Haven, Conn., recently completed for J. E. Kent, Esq. An attractive design in the modern Colonial style. Two perspective elevations and floor plans. Cost \$6,850 complete. Messrs. Rossiter & Wright, architects, New York
- 6. A Colonial double house recently completed at Bayonne City, N. J. Perspective elevation and floor plans. Cost \$4,800. Mr. Arthur C. Longyear, architect, New York City.
- 7. A dwelling at Bensonhurst, L. I., recently erected for John P. Jepson, Esq. An excellent example for a suburban home. Two perspective elevations and floor plans. Cost \$5,620 complete, ready for occupancy. Mr. William H. Mersereau, architect, New York City.
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etc., illustrated.—Double tenoning by machinery.— Transparent bricks for hothouses. -The Capital weight sliding blinds, illustrated.—The new decoration in the apse of St. Paul's.-Preparing walls for papering.—An improved carpenter's clamp, illustrated.—An improved sanitary appliance, illustrated.-Hughes' improved drawing table, illustrated.—Helping the deaf to hear, illustrated.

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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 muffie 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 bluingtakes 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, 11/2 ounce; tincture of iron, 11/2 ounce; corrosive sublimate, 11/2 ounce; sweet spirits of niter, 11/2 ounce; blue vitriol, 1 ounce; nitric acid, 34 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

(6264) E. R. asks: 1. Upon our ranch The new Protestant Cathedral at Berlin, Germany, we have a hydraulic ram which forces water for domestic costing \$2,400,000. Designed by Prof. Julius 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 portion in architecture.—The architect who never the chamber is in that condition, the valve in operating exceeded estimates.—Some difference between pounds very hard, as though it was striking something the English and American plumbers.—Decay of solid. What causes the chamber to fill with water? A. stone.—Wood water main.—Artificial marble.— The air in the air chamber is absorbed by the water under Art mouldings, illustrated.—Snow guards for roofs, 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 heater, illustrated.—The Poppert patent improved | 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 an earth battery if you connect all your zincs together and all your copper plates together. No zinc and copwill 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 Extractor. See Nail extractor.

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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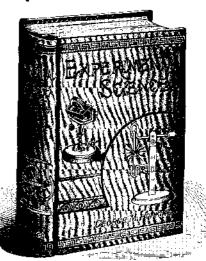
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