

simple, and with it a child can safely shoot a toy ball by the explosion of a firecracker, the ball being readily directed as desired.

GAME APPARATUS.—Anton Scholz, Brooklyn, N. Y. This is an apparatus to be employed in conjunction with an ordinary spinning top, and consists of a plate having a handle, and with a central aperture forming a seat for the spinning top, as it may be caught up from the ground or floor while spinning, the top being marked with numerals around its body, while a pointer on the handle indicates the number at which the top comes to rest.

DESIGN FOR A SPOON.—Joseph A. Hughes, Corpus Christi, Texas. This is a souvenir spoon representative of the State of Texas. Its leading feature is a head and bust of Davy Crockett on the end of the handle, while at the middle of the shank is a lone star, and on the bowl a representation of the old building known as the "Alamo."

DESIGN FOR A BARBER'S SIGN.—Ferdinand Svoboda and Charles Hofmann, Chicago, Ill. At the top of this sign is the figure of a man's head and face, with towel gathered about the neck, below which is a shield having stars on its upper portion, there being also stripes or panels on the face of the sign.

DESIGN FOR ORNAMENTING FABRICS.—Henry Sturm, Arlington, N. J. This design is more particularly applicable for night shirts, and comprises a conventional figure of Columbia grasping a sword with one hand and with the other a gonfalon.

DESIGN FOR A LEGGIN.—Samuel Borchardt, New York City. This leggin body has an extension top, ornamentation separating the extension top from the body portion, while the body and top of the leggin are made of contrasting colors to heighten the effect of the design, and cause the top to show to advantage through open panels.

DESIGN FOR A CARPET.—Pierre C. Chambellan, West Hoboken, N. J. The body of this design is formed of a large group of flower and leaf forms, partly surrounded by curving branches, while the border is composed of groups of flower and leaf forms and spiral branching arms and ornamental inner and outer margins.

DESIGN FOR A SHEPHERD'S CROOK.—Albert L. Babcock, Billings, Montana. This crook has a somewhat pear-shaped loop, from which the outer end of the crook sweeps gradually outward to some distance from the handle.

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. SEPTEMBER NUMBER.—(No. 83.)

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2. Plate in colors showing an elegant residence at Montclair, N. J. Two perspective views and floor plans. Cost \$17,000 complete. Mr. Frank H. Kimball, architect, New York.
3. Elevation and plans for a house at Arlington, N. J. Cost \$5,500.
4. A beautiful residence at Denver, Colorado. Perspective and floor plans. Cost about \$40,000.
5. Elegant residence at Denver, Colorado. Cost about \$30,000. Floor plans and perspective elevation.
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(4530) J. W. L. asks: Suppose I have two dynamos, 110 volts each, one 200 and the other 400 amperes, connected in shunt on the main line, and have a load of 400 amperes, and the load being equal on both machines; now, there is a demand on the line for 600 amperes; now, does the load continue to be equal on both machines or does the 400 ampere machine take the load? A. The following is furnished by Mr. Edison: Two dynamos, one having double the capacity of the other, would not share the load equally, unless the e. m. f. of the smaller were made a little in excess of that in the armature of the larger machine. This being done, however, and the load equally divided, a still further increase will be shared unequally, the larger machine taking the greater share of the increase. In practice, of course, the e. m. f. of each machine is so controlled that its proper load is taken.

(4531) E. G. P. writes: I would like to know in what way salt effects the freezing of ice cream. A. By causing the ice to melt, on account of its own slight affinity for water. The ice in melting rapidly absorbs heat or renders heat latent, and hence reduces the temperature below that of ice, which simply melts by heat acquired from surrounding objects by conduction or convection of air.

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