

out of the vehicle. The check strap is extended beneath a gripping cam on the saddle and is made to act on a rearwardly projecting arm to release the cam by being lifted or moved upwardly.

KNEE PROTECTOR.—Thomas B. Walker, Honolulu, Hawaii. For the use of cavalrymen and others to protect the rider against rain, snow, etc., this inventor has devised a new article of manufacture to be made of leather, rubber or waterproof cloth.

STRING FASTENER.—Charles C. Pine, New York City. For fastening shoes, corsets and other articles to be laced, this inventor provides a device for holding the string end without tying the string or using springs, jaws, etc., the fastener being more especially designed for use with flat strings.

PAPER DOLL.—Edward T. Gibson, Minneapolis, Minn. This invention relates to dolls in which changes of costume can be made by the adjustment of paper garments, the doll being destitute of arms and shoulders, and preferably destitute of head and neck.

GAME APPARATUS.—Joseph Jessup, Woodbury, N. J. A game to be played in simulation of the game of football is provided by this patent, a foldable board being used, marked off as a football field, while a movable block has the position of the opposing teams indicated thereon.

DESIGN FOR WRENCH HEAD.—Walter T. Johnson, Macon, Ga. This head has a rounding and transversely serrated top surface, one projecting end presenting a bifurcation and the opposite projecting end being concaved at the under side.

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. AUGUST, 1895.—(No. 118.)

TABLE OF CONTENTS.

- 1. A Colonial house at Scranton, Pa. Perspective elevation and floor plans. Cost complete \$4,500. E. G. W. Dietrich, architect, New York City. A simple yet pleasing design.
2. A cottage at Residence Park, New Rochelle, N. Y. Two perspective elevations and floor plans. Architect, Mr. G. K. Thompson, New York City. A unique example for a cottage dwelling.

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Notes & Queries

HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters, or no attention will be paid thereto. This is for our information and not for publication. References to former articles or answers should give date of paper and page or number of question.

(6598) T. D. B. asks: 1. Will you please tell me the name of inclosed leaves and greatly oblige several parties? A. Charles W. Dabney, Jr., of the Department of Agriculture, informs us that the leaf which you inclose is that of the common poison ivy, Rhus radicans.

formula (1) C is made larger, the product CE becomes larger; that is, more power in watts is used and more light is given. This answers the question as asked, but the result cannot be gained in this way.

(6599) P. W. says: Please tell me through your paper: 1. What is celluloid composed of? A. Celluloid is a hard elastic compound made by subjecting gun cotton, camphor and other ingredients to hydraulic pressure. See our SUPPLEMENT, No. 227.

(6600) J. D. writes: I am figuring on a refrigerating plant, to be operated by the use of compressed air, and would be glad if you will state how many cubic feet of air, atmospheric pressure, at a temperature of 20°, would be required to cool say one gallon of water to a temperature of 34°.

Gardeners' Chronicle, recommends, as an improvement in the method of using sulphurous acid for preserving the color, that in the case of delicate flowers they might be placed loosely between sheets of vegetable parchment before immersion in the liquid, so as to preserve their natural form.

(6601) P. B. V. says: Please give me through Notes and Queries a formula for a black hair dye. A. 1. Black: Sulphate of iron.....10 grm. Glycerine.....1 oz. Water.....1 pt.

After the first application of formula 1, the hair should be allowed to dry and then be brushed. Subsequently, both formulae may be used once daily at an interval of an hour or so, until a black color is produced.

(6602) F. and M. say: Have you receipt for working over and restoring rancid butter to fresh, sweet flavor? A. To Convert Rancid Butter.—1. 100 pounds of butter is mixed with about 30 gallons of hot water, containing 1/2 pound of bicarbonate of soda and 15 pounds of fine granular animal charcoal free from dust.

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INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted August 6, 1895,

AND EACH BEARING THAT DATE. (See note at end of list about copies of these patents.)

- Advertising caster, C. E. Larrabee..... 543,938
Air braking coupling, W. A. & B. S. H. Harris..... 544,253
Alarm.—See Fire alarm. Highb or low water alarm.
Alarm lock for tills, electric, C. Helm..... 544,224

- Bicycle frame, W. K. Bells..... 544,021
Bicycle lock, J. D. Shoots..... 543,132
Bicycle pedal balance attachment, J. R. Bliven..... 543,944
Bicycle support, V. H. Harris, Jr..... 544,267
Bicycles, obtaining two speeds in, S. J. Collier..... 544,357
Bismuth oxydiodigallate and preparing same, F. Ludy..... 544,104