NEW BOOKS, ETC.

ALTERNATING CURRENT MACHINERY. By William Esty, S.B., M.A. Chicago: American School of Correspondence, 1905. 8vo.; pp. 432.

The prevailing impression among men who have obtained their electrical knowledge from practice, that one must be a college graduate to be able to understand a book on alternating currents, is in most cases not far from the truth. Very few books on this important subject use simple mathematical proofs. Calculus is largely used except in such books as make it a special point to avoid this advanced subject. But these books can hardly claim to be any simpler mathematically, because the algebraic and trigonometric problems introduced are usually of the most involved character. Mr. Esty in the present work has carried the simplification a long step further by avoiding mathematics as far as possible, and where impossible, using such simple reasoning as will be clear to anyone acquainted only with the rudiments of algebra, geometry, and trigonometry. The special aim of the book is to explain first the physical theory, second the application, behavior, and operation, and third the structural details of the various apparatus. The usual tests and the calculations based on them are also explained. The volume has been prepared particularly for use by the American School of Correspondence, and, therefore, contains many examples which help to fix the matter in the student's mind.

ELECTRICAL INSTRUMENTS AND TESTING. By Norman H. Schneider. New York: Spon & Chamberlain, 1905. 12mo.; pp. 199. Price, $1.

This book describes in simple language the apparatus and formulas used in tests in the daily work of the engine room, power house, or technical school. The galvanometers, voltmeters, ammeters, rheostats, Wheatstone bridge, potentiometer, portable testing sets, etc., are described in very simple language, and the simplest formulas for their use are given. The book also has a number of tables giving the resistance of copper wire, and the increase of resistance with temperature, the natural tangents of angles, voltmeter readings and resistance tests, etc.

THE POTATO. By Samuel Fraser, Assistant Agronomist, Cornell University. New York: Orange Judd Company, 1905. 12mo.; pp. 200. Price, 75 cents.

This book is a manual for the potato grower. While the practical side of potato culture has been emphasized, much scientific information of value has also been included. The author has drawn a vast amount of information from the American Agricultural Experiment Station Reports of the past fifteen years, and also from data obtained from Europe. The author himself has had a wide experience in potato culture, both commercially and experimentally, in Great Britain and America. Among the subjects discussed are Soils; Rotation of Crops; Manuring and Fertilizing; Consideration of Seeds; Varieties; Planting; Management of the Growing Crop; Obstructions to Growth and Development; Sprays and Spraying; Harvesting; Storing; Production, Transportation, and Markets, and the Chemical Composition and Food Value. The book is illustrated with over fifty cuts, and there is no doubt that it will be found extremely valuable to the potato grower.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending May 2, 1905

AND EACH BEARING THAT DATE

[See note at end of list about copies of these patents.]

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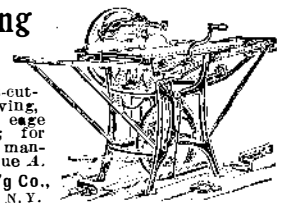

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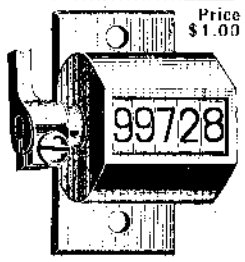

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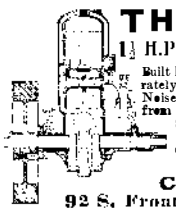

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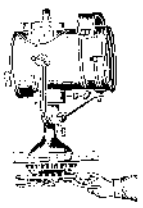

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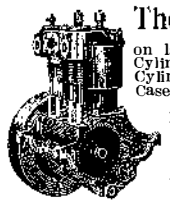

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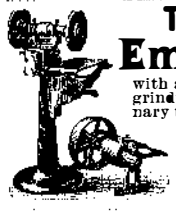

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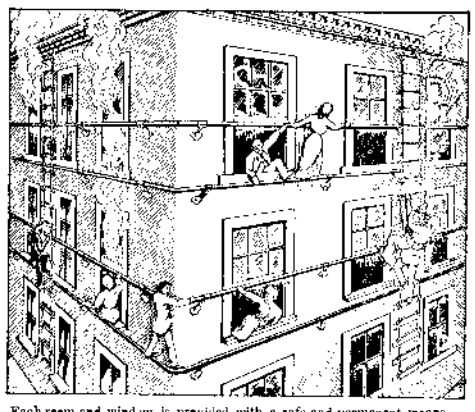

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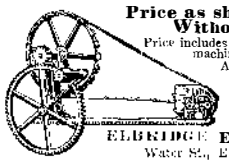

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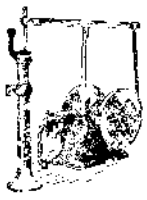

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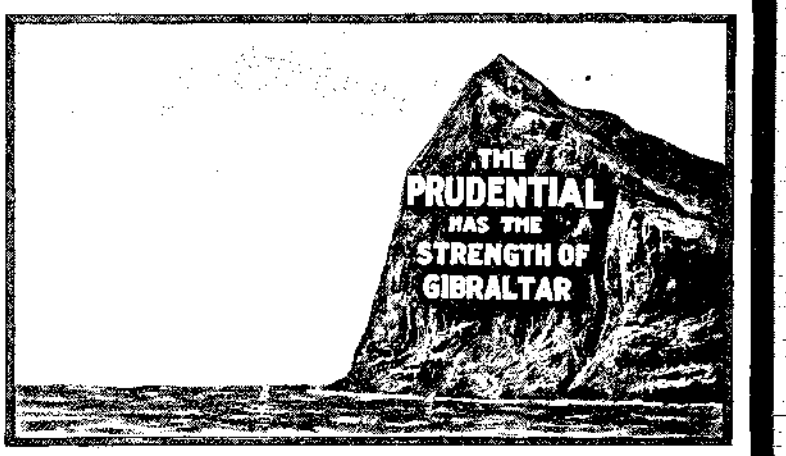

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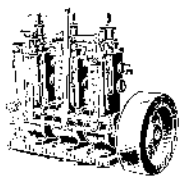

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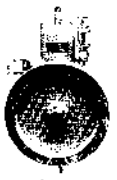

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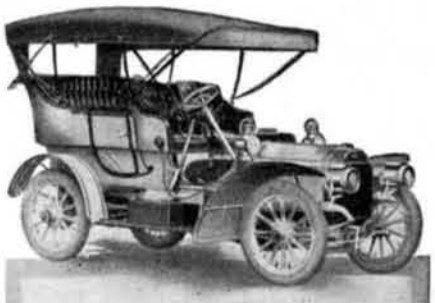

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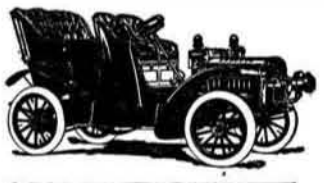

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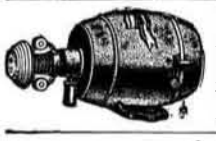

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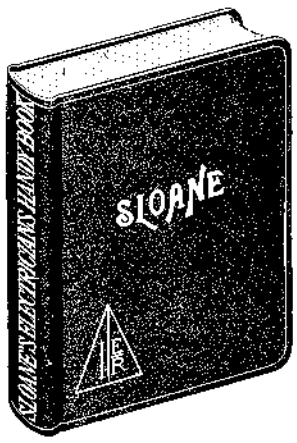

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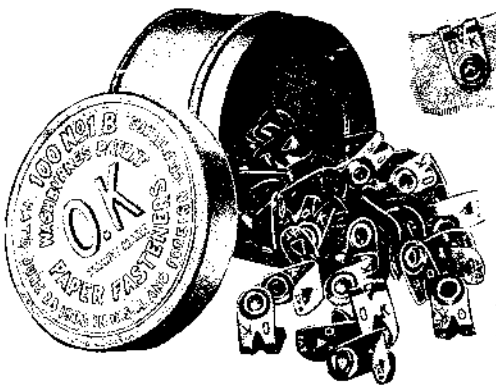

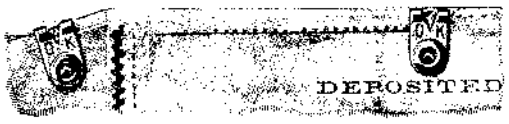

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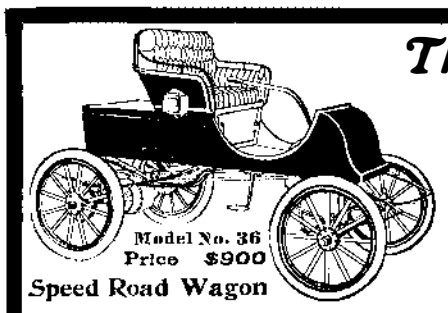

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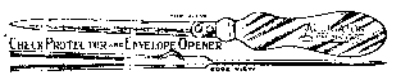

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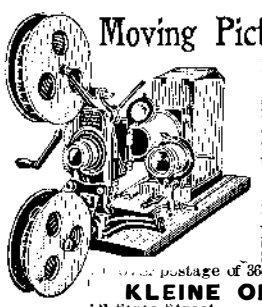

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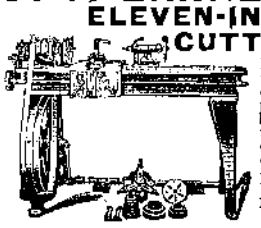

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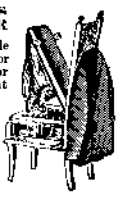

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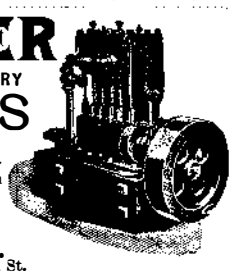

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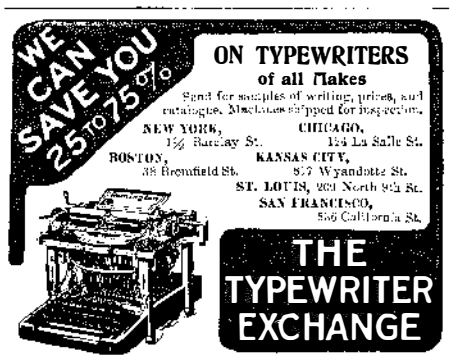

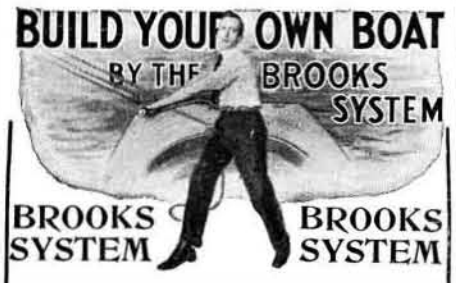

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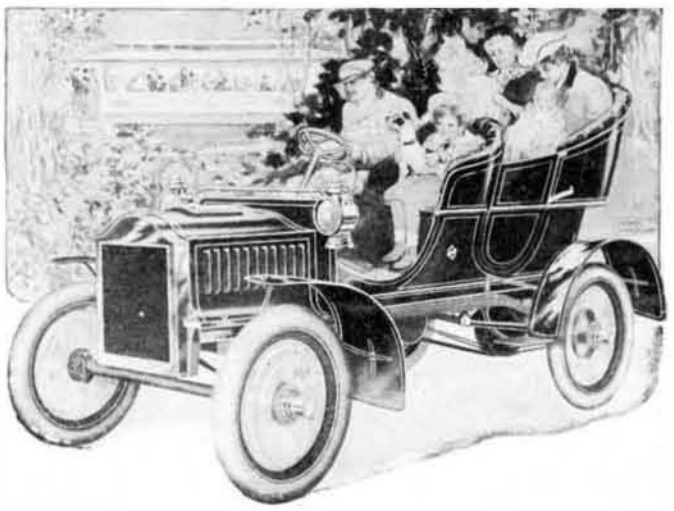

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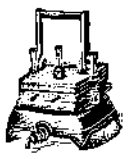

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MANY WATERS (2d Prize)	Mrs. Margaret Deland
IN THE PROMISED LAND (3d Prize)	Raymond M. Alden
Rasselas in the Vegetable Kingdom	Mrs. H. L. Pangborn
The Golden Egg	Ellen Duvall
The Best Man	Edith Wharton
Paradise Ranch	Gouverneur Morris
The Golden Age of Poincarré	Stanhope Sams
The Dissembler	Mabel Herbert Urner
The Haunted Bell	Herminie Templeton
Chains of Darkness	Edith Labaree Lewis
The Two-Gun Man	Stewart Edward White
A New Light	M. S. Kelly
The Rhyme to Porringer	James Branch Cabell
The Village Child	Jeannette Lee
Mr. Chadwick's Trial Balance	Thomas Jackson
The Dragon-Painter	Mary McNeil Fenollosa
The Unearned Increment	Frederick Trevor Hill
Strone's Southerner	Charles Warren
A Study in Values	Emma Kaufman
A Belated Conscience	Florence Converse
Cecilia	Theodosia Garrison
Lottridge	Ray Stannard Baker
The System of Haddon-Brown	David Lloyd
Chance	L. C. Hopkins
The Valley of Sunshine and Shadow	Rowland Thomas
The Chief, the Child, and Mickey Sweeney	Lincoln Steffens
Keepers of the Gate	Dr. W. Lowndes Peple
The Telegram	Robert L. Beecher
The Strategy of Shorty	Rex E. Beach
The Atavism of Abimelech	Frank N. Stratton
M'Liss's Child	Ella Higginson
Victory	Helen Palmer
Georgia	John Luther Long
A Woman Laughs Last	Gordon Wilson
Fisherman's Luck	Jeannette Lee
Our Buzzitski	W. S. Dunbar
Children of Eden	Elmore Elliott Peake
The Meddler	Robert McDonald
The Daughter of the Factory	Washington Gladden
Paths of Flame	Alvah Milton Kerr
The Letter Written and the Letter Sent	Mabel Herbert Urner
Across the Boundary	Henry Wysham
The Other Kind of Greatness	Ella Higginson
The Casting Out of Adoniram Goforth	Alice MacGowan
Of the Honor of the Dorans	Jas. Gardner Sanderson
But as Yesterday	George Hibbard
My Father's Brother	John Farewell Moors
A Woodland Heritage	Alta Brunt Sembower
Billy Boy	John Luther Long
Sailormen	Stephen French Whitman
The Fog Maiden	Cloudesley Johns
The Spring by the Water Tank	George L. Teeple
Politics and Little Pigtails	Viola Roseboro
A Frost-Nipped Romance	Alta Brunt Sembower
On the Roof of the World	Arthur S. Pier
"Daown in Missouri"	Marianne Gauss
The Donaghue Luck	Kate Jordan
Arms and the Woman	Rex E. Beach
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Forsaken Mountain	Samuel Hopkins Adams
The Middle Ground	Edwin Balmer
How Snorts Climbed Sourdough	Alfred E. Dickey
Elizabeth	Charlotte Lee Barrows
On the Face of the Waters	Jeannette Lee
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Saddle and Croup in Turkey Hollow	F. L. Stealey
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