with an index. We have seen few books in which the absence of this feature is more to be regretted

CAMBRIDGE NATURAL SCIENCE MAN-UALS. Physical series. Light. An elementary text book, theoretical and practical, for colleges and schools. By R. T. Glazebrook. Cambridge: University Press. 1894. Pp. 213. Price \$1.

This little work claims to embody the teaching of the physics of light hy experiment. This, however, does not prevent it from presenting a very valuable treatment of the subject, in which the laws of light are well stated, and the use of simple experiments and not their abuse is given. It is designed for medical students at the Cavendish laboratory, but this really operates as a very minor restriction on its scope.

TELEPHONE LINES AND THEIR PROPERTIES. By William J. Hopkins. New edition, revised and enlarged. New York: Longmans, Green & Co. 1894. Pp. xvi, 268. Price \$1.50.

The production of a adequate work on the subject of telephones, more especially on the lines and circuits seems really to have filled a want existing in technical literature. We are convinced that in its practical details, as well as its examination of induction and the properties of telephone lines, it will be of great use to the practical man. as well as of interest to the student. It is very fully illustrated and can be confidently recommended to

## SCIENTIFIC AMERICAN

## BUILDING EDITION.

#### MAY, 1894.-(No. 103.)

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- 7. The Barnum Institute of Science and History, of Bridgeport, Conn., donated by the late Phineas T. Barnum. A one-half page perspective view. Cost for building and grounds \$100,000. A fine example of the Romanesque style of architecture
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(6049) H. D. says: Not long since a an was traveling through this section selling a preparation to remove warts, corns, etc. It only required two or three minutes to remove them. Of what substances and proportion was his preparation, and is there any dange

Cannabis Indica (Indian hemp)..... 5 

Mix and applymorning and evening for four days. Then soak the feet in warm water. If this be done faithfully, the corns are removed without any difficulty. is a clear light green solution. There should be no difficulty in its preparation. To prevent it from evaporating, keep the solution in a stoppered bottle. Be sure and use the Indian hemp, and not the American article; the latter is not easily soluble. We would not advise the use of any such preparation as you describe, as it is probably harmful. The formula given above is harmless

(6050) J. C. asks for a negative varnish: A. Try

Sandarac	4 ounces.	
Alcohol		
Oil of lavender	3 44	
Chloroform	5 drachma	
other is		
Methylated spirit	12 ounces.	
Light amber shellac	11/2 "	
Sandarac	11/2 "	
Canada balsam		
Oil of levender	16 00000	

Before varnishing the film should be perfectly dry, and it will be well to heat it a little. Before printing from the varnished negative, warm the surface to evaporate all moisture that may adhere there. If these precautions are taken, there should be no staining of the film. 2. What will remove the silver stain caused by the film of aristo paper adhering to the surface of the negative? A with fine engravings, illustrating the most interesting Usually the stain can be removed by rubbing it lightly examples of Modern Architectural Construction and with a tuft of absorbent cotton wetted with a weak solution of cyanide of potassium, previously soaking the negative for 10 minutes in a solution of lodide of potassium 20 grains to 1 ounce of water. Gihon's opaque, we think is made similar to water colors cakes usually sold, to 

thinned or thickened as desired, with alcohol, and applied with a brush.

(6051) E. & M. ask: 1. Does the plane or convex side of a single plano-convex lens go next the sensitive plate in the "Photoret"? A. The convex. 2. Will the same answer apply to a single achromatic Waterbury lens? A. Yes. 3. Will you be kind enough to give us a formula for metol developer? A. Metol 5 grains, sodium sulphite 3 grains, water 1 ounce, add carbonate of potash 2 grains. 4. What is metol? A. The chemical name is monomethylparamidometacreosote. It is a derivative from coal tar. 5. What is hydrochinone is A. A derivative of cinchona bark. 6. Is para-amidophenol hydrochlorate injurious to use? A. No.

(6052) A. H.-1. Electrotypes of half tone blocks are used for printing from. 2. Carbon tissue can he had of the photo. dealers in different colors and is printed in the same manner as other photos.

(6053) J. E. W. asks: What is the largest number of shots on record fired by a Gatling gun per minute, and where was it done? A. The Gatling gun at the trials at Shoeburyness, England, was fired 400 rounds perminute. Later by improvements it is claimed to have been fired 100 rounds per minute, in each of its 10 barrels, or 1,000 rounds per minute. About 600 rounds per minute is the average practice of the best machine curs.

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An experience of forty-four years, and the preparation of more than one hundred thousand applications for nature at home and abroad, enable us to understand the laws and practice on both continents, and to possess unqualed facilities for producing patents everywhere. A synopsis of the patent laws of the United States and all foreign countries may be had on application, and persons contemplating the securing of patents, either at home or abroad, are invited to write to this office for prices which are low, in accordance with the times and our extensive facilities for conducting the business. Address MUNN & CO., office Scientific American, 361 Broadway, New York.

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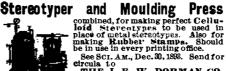


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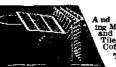


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