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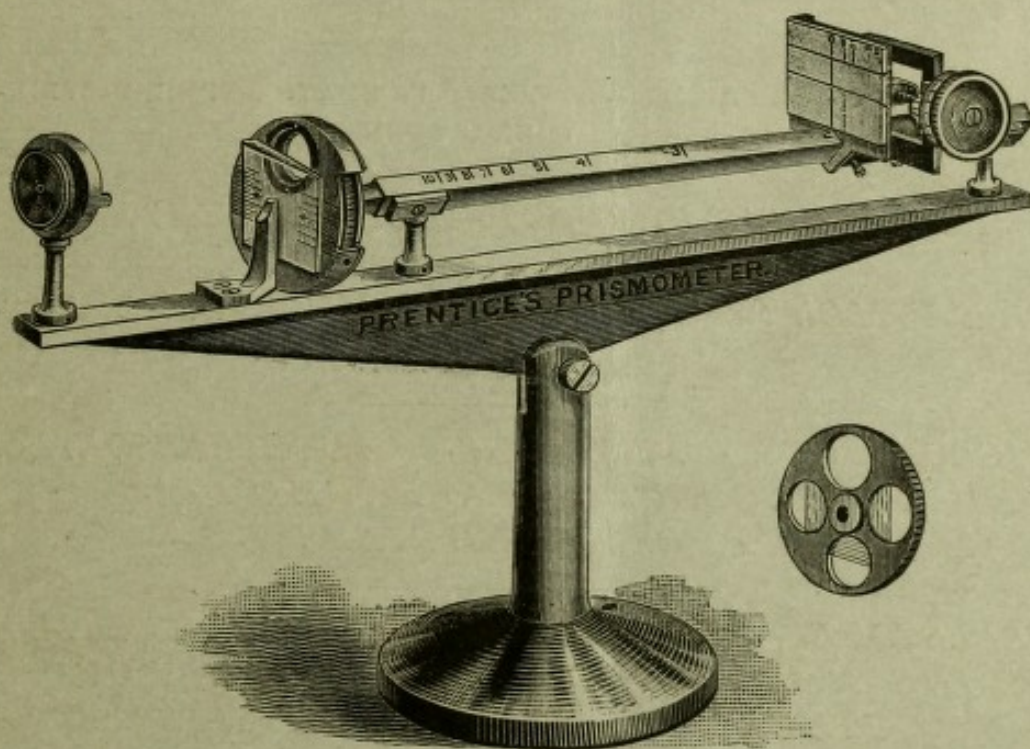
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THE PERFECTED PRISMOMETER 9.

ITS PRACTICAL ADVANTAGES, CONSTRUCTION,
AND VARIOUS APPLICATIONS

BY

C. F. PRENTICE, NEW YORK



WITH THE COMPLIMENTS OF

BAUSCH & LOMB OPTICAL CO.

ROCHESTER, N. Y.

Bausch & Lomb Optical Co.

MANUFACTURERS OF

"The American Standard" Lenses



INCLUDING SPHERICAL, CYLINDRICAL, PRISMATIC, SPHERO-CYLINDRICAL, AND OTHER COMBINATIONS

PRENTICE'S PERFECTED PRISMOMETER

INSTRUMENTS FOR MEASURING FOCAL DISTANCES OF LENSES

*MICROSCOPES, OBJECTIVES AND ACCESSORIES,
PHOTOGRAPHIC LENSES, AND DIAPHRAGM SHUTTERS*

*TELESCOPES, EYE GLASSES, MAGNIFIERS, READING GLASSES, AND A LARGE VARIETY OF
OTHER OPTICAL INSTRUMENTS*

FACTORY AND MAIN OFFICE
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Rochester, N. Y.
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New York City
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PREFACE.

PRACTICAL opticians having for many years felt the necessity of some accurate means of determining the refracting angles of prisms, we take pleasure in announcing that we have made preparations to meet this desideratum by the Prentice Prismometer, of which we are the authorized manufacturers. Although Mr. Prentice's instrument has been devised more especially for his metric system of measurement, it is also adapted to determine the refracting angles of prisms which are members of the conventional degree-system of numbering.

A table accompanying the instrument has therefore been prepared, showing the deviation which results from perpendicular incidence of a ray of light upon one of the faces of the prism, for the commonly accepted index of refraction, 1.53.

In a column of this table will be found the degree of prism-angle which corresponds to the proper deviation set beside it in another.

As the intrinsic practical advantages, expeditious use, and accuracy of the prismometer for the metric system of measuring SPHERO-PRISMATIC lenses would be wholly lost by a strict adherence to a degree-system, we should recommend opticians to accept a degree of prism-angle as being equal to one prism-dioptry up to 5 degrees of prism, or 5 prism-dioptries in making measurements of such combinations. This will greatly simplify what would otherwise entail lengthy calculation, besides imparting to the degree-system an element of "exactness"¹ in the practical execution of such prescriptions, which advocates of degree-systems have thus far been obliged to silently ignore.

¹ "The Metric System of Numbering Prisms." Swan M. Burnett, M.D., Ph.D. *The Ophthalmic Review*, London, England, vol. x., No. 111, Jan'y, 1891.

Preface.

To judge from a recently expressed opinion, and which is in such remarkable contrast to Dr. Swan M. Burnett's able and irrefutable argument in favor of the prism-dioptry as to prompt a repetition here: ["The numbering of prisms according to their meter-angles or dioptry-angles, lately advocated by so many writers, seems to me a cumbrous, inconvenient, and inaccurate system; and I have yet to see a valid argument in favor of its adoption"],¹ it would appear that sound reasoning alone has been insufficient to gain *universal* approval for Mr. Prentice's metric system, so that skillful opticians should secure an opportunity to demonstrate its value through the prismometer for themselves.

The merits of the metric system are fully explained by the author in the appended paper, and, as we find it far superior to other recently ventilated theories in effectively meeting the requirements of practical opticians, we cheerfully lend it our support² as manufacturers of optical lenses and prisms.

BAUSCH & LOMB Optical Co.

ROCHESTER, N. Y., Feb., 1891.

¹ "On the Cylindrical Equivalent of Tilted Lenses," etc., etc. Dr. W. A. Holden, *Archives of Ophthalmology*, vol. xx., No. 1, Jan'y, 1891.

² Our letter to Dr. Swan M. Burnett, published in the *Ophthalmic Review*, London, Jan'y, 1891.