THE NEW ELECTRIC LIGHT.

(Dry Goods Economist.)

IN ALL stores in which the goods require the most perfect display at all times during the business day, such as department and dry goods stores generally, as well as wholesale warehouses where goods are bought from samples, the question of artificial illumination presents a difficulty not heretofore easily solved. In no place is it more important to have a perfect light than in stores where clothes, cloths, silks, colored textiles of all kinds, fine glassware, delicate porcelains and chinaware are sold, and in none can a poor light work more harm to the owner by illy showing his goods. Many cases can be recalled in the experience of every store proprietor in which perfect matches of color by the artificial light on which he has had to depend have turned out unhappy marriages as soon as they were exposed to the pure white light of the sun, to the dissatisfaction of the customer and frequently the loss of his custom. What salesman has not been compelled to carry heavy rolls of cloth and bolts of silk to the store doorway to show that colors and shades are vastly different in the light of day than in the interior of the store gaslit or lighted by open arc electric lamps?

The perfect illumination of dry goods and department stores, and, indeed, all stores of a kindred character, has hitherto been an unsolved problem. Gas burning from an ordinary burner is far too garish and yellow. Used in an incandescent mantle, the light is too greenish and sallow. In both cases colors are falsified in a manner which the ordinary observer would consider impossible, and which, to the practiced eye, is almost inconceivable. The primary colors become complementary, and the complementary colors become almost anything. An additional drawback is to be found in the deleterious effect on the eyes of the employes, which tend to lose that power of color selection which is a prime necessity.

The intensity of the light from an open arc lamp lights up part of the store too brilliantly, while it throws the other part into deep obscurity. Even with the most careful distribution to avoid shadows, the cross lights from the open arcs caused inconvenience. Furthermore, with open arcs there is always a certain amount of sparking at the arc, by which heated particles of carbon are given off, frequently passing over the top of the globe and falling in the vicinity of the light. As the heat from them is not immediately extinguished their very presence is a danger.

Within a very recent period a new type of electric light has been introduced. It has successfully been put on the market by the General Electric Company, and owes its development and present perfection to the genius of Prof. Elihu Thomson. It is an arc lamp, with the two carbons burning in an air-tight globe filled with the inert gas which the combustion of the carbons creates. By inclosing the arc in this globe the life of the carbons is tremendously lengthened, and, instead of burning only 10 hours, they burn from 90 hours in that used with alternating currents to 150 hours in that used with the direct current.

The point of greatest importance to the dry goods store is the quality of the light. From the enclosed arc lamp the light emitted is a pure white light, and its diffusion through the walls of the globe is as perfect as possible with any artificial light. The result is almost equal to the light of day, a light which cannot falsify colors, a light under which goods of any color may be shown with the assurance that if taken to the store door no difference in shade can possibly be seen. *It is different* from any other light artificially produced, and is the only light upon which reliance can be placed to give to dry goods stores a perfect illumination.

In open rooms each lamp can be depended upon to satisfactorily illuminate 600 sq. ft. of space, but where a department has, suspended from its ceilings, draperies, portieres, rugs, carpets or other samples for display, which necessarily obstruct the light, the floor space illuminated would not be so great, and the lamps would have to be installed more freely.

The enclosed arc lamp is manufactured in two styles, known as the double globe and single globe. In both the mechanism is similar in every respect, and the carbons burn in similar small globes. In the single lamp, however, the place of the large outer globe is taken by a special widely flared glass reflector with a highly polished under surface. The double globe lamp is used where an absolutely even diffusion of the light is required; the single globe lamp where greater intensity and some concentration beneath the lamp are necessary. The enclosed arc lamps are constructed for use on alternating current circuits as well as on direct current circuits, the duration of the life of the carbons being somewhat shorter in the alternating than in the direct-current lamp.

For interior lighting, both single and double globe lamps are made up with different styles of ornamental castings in different finishings. For outdoor use, the double globe lamp alone is used in a black japanned casing.

The Canadian General Electric Co., Limited, head office, Toronto, Ont., are Canadian agents for these celebrated enclosed arc lamps. Write for booklet on store and window lighting.

A JOKE ON A TRAVELER.

"I've a good story to tell you, boys," said a traveler on the western Ontario ground, to a crowd of others. "I don't think any of you ever heard me tell it before." "Is it a real good story?" asked one of the party, doubtingly. "It certainly is." "Then you never told it before."