W. LUMLEY.

EXTENSIBLE LIGHT FIXTURE.

APPLICATION FILED JAN. 27, 1909.

980,308. Patented Jan. 3, 1911.

2 SHEETS—SHEET 1.

Fig. 1.

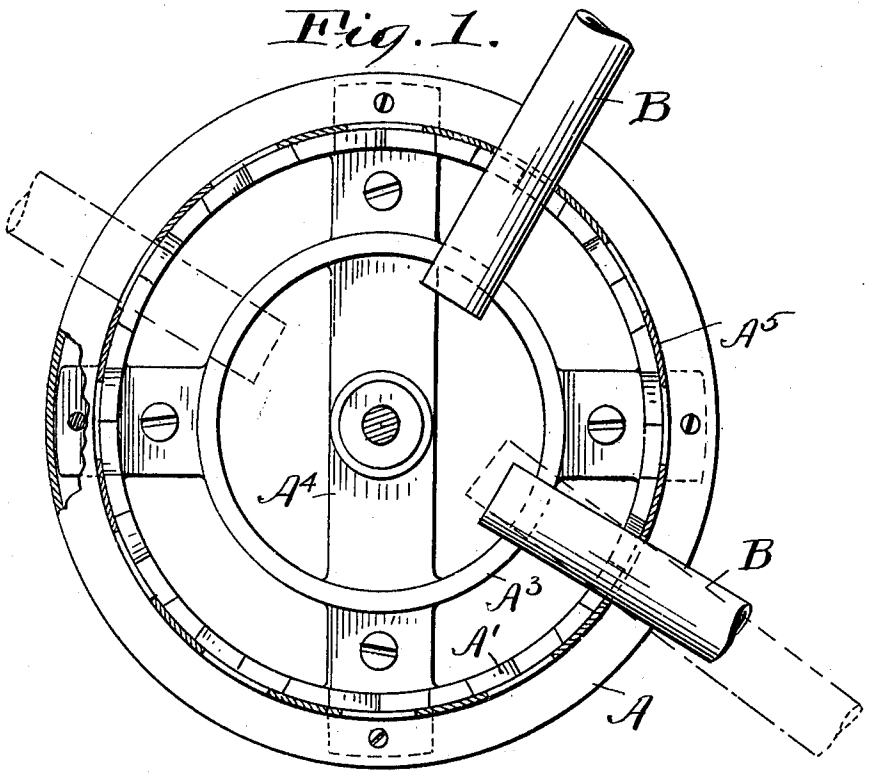
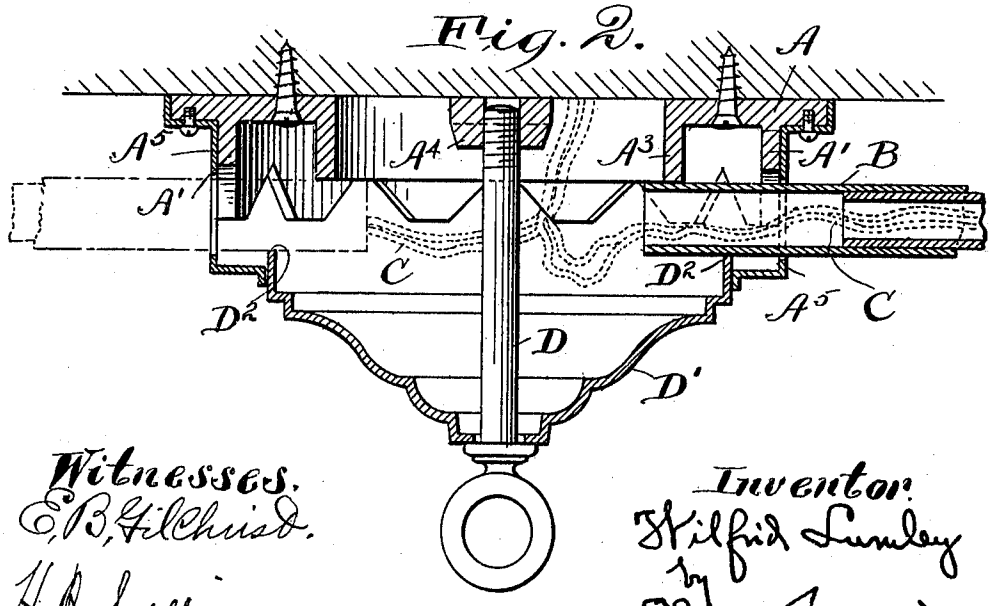


Fig. 2.



Witnesses.
E. B. Gilchrist.
H. B. Sullivan

Inventor
Wilfrid Lumley
by
Thurston & Woodward
Attys

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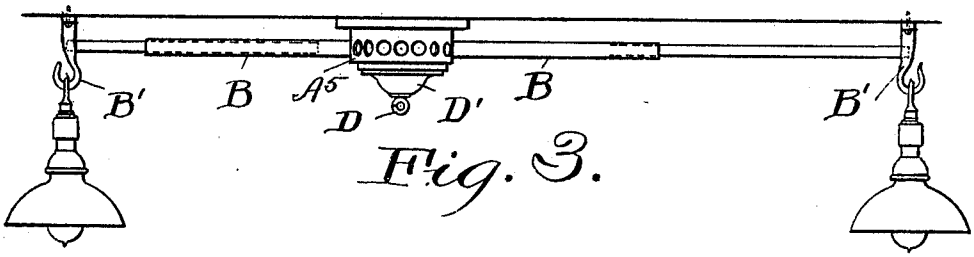
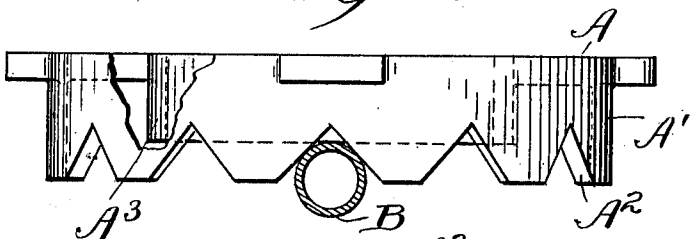


Fig. 3.

Fig. 4.



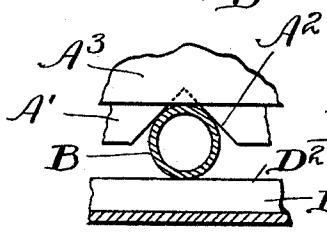
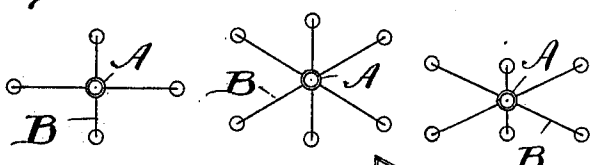
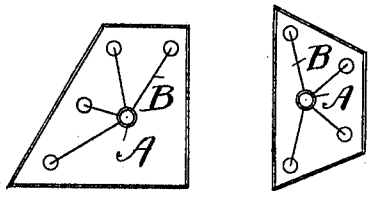


Fig. 5.

Fig. 6.





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Attys

UNITED STATES PATENT OFFICE.

WILFRID LUMLEY, OF EAST CONNEAUT, OHIO, ASSIGNOR TO THE CONNEAUT COMPANY, A CORPORATION OF OHIO.

EXTENSIBLE LIGHT-FIXTURE.

980,308. Specification of Letters Patent. **Patented Jan. 3, 1911.**

Application filed January 27, 1909. Serial No. 474,387.

To all whom it may concern:

Be it known that I, WILFRID LUMLEY, a citizen of the United States, residing at East Conneaut, in the county of Ashtabula and State of Ohio, have invented a certain new and useful Improvement in Extensible Light-Fixtures, of which the following is a full, clear, and exact description.

The present invention relates to an improved fixture for the installation of electric lights.

The invention is more particularly directed to the production of a fixture permitting a great amount of variation and choice in the location of a number of individual lights employed for illuminating the same general area.

It has been my purpose to provide a fixture which, aside from the initial connection with the house wires, can be installed and changed by the ordinary person without the necessity for calling in the assistance of the expert electrician or skilled workman whose time may be and generally is rather costly.

One of the more specific objects of my invention has been to provide a fixture capable of being adjusted to the proper illumination of store windows differing in size and proportion; it being a fact well known, since the subject of illumination has been studied scientifically, that the disposition and arrangement of lights necessary to produce most efficient results is different with every different size and proportion of the illuminated chamber. Inasmuch as practically every shop window varies from every other either in size or proportion, those merchants desiring the best effect have been forced to either have special fixtures made for their windows or else call in the electrician and have a number of different lights wired in at the proper places in their windows. The latter expedient is very expensive and frequently results in an unsightly, even if effective, arrangement of parts.

It will be seen that I have attained the objects above stated and avoided the objections noted by that embodiment of my invention described in the following specification with reference to the accompanying drawings, in which;

Figure 1 is a bottom plan view of the upper member of my fixture partly broken away and showing the relative location of the inner ends of the extension arms. Fig. 2 is a vertical transverse section of the central member of my fixture, applied to the ceiling. Fig. 3 is a side elevation of the fixture installed. Fig. 4 is an elevation partly broken away of the upper member of the center piece of the fixture, one of the extension arms being shown in section. Fig. 5 is a fragmentary detail section showing relative location of the upper and lower holding members of the center piece, and the inner end of an extension arm held between the same. Fig. 6 comprises a series of five diagrams illustrating possible variations with a fixture of this sort for the purpose of giving different distributions of light such as may be required by different areas of windows.

The center piece of my fixture comprises an upper securing member, preferably a casting A, adapted to be fastened to the ceiling by means of screws or other devices. This member has depending therefrom a peripheral skirt or flange A′ with a number of notches A^2 in the edge thereof for assisting in holding branch arms B through which the electric light wires C are led. A second flange A^3 depends from the top plate intermediate of the outer flange and the center. The lower edge of this flange is preferably smooth and at the proper elevation to be engaged by the inner end of the bracket arms from which the lights are suspended. A central spider or web A^4 is provided, and has a thread tapped therein designed to receive the threaded end of a securing bolt D which holds the lower member or bell D′ of the fixture and gives it vertical adjustment. This bell has a bearing edge D^2 at its periphery on which rests the branch arms, said arms being held between said bearing edge and the lower faces of the two flanges dropped from the securing plate, as above described. A finishing cylinder or barrel A^5 is preferably fastened to the outer face of the securing plate and hangs sufficiently low to meet the bell member of the fixture and give a decorative effect to the outfit. This barrel has suitable openings therethrough for the passage of the branch arms, said openings being rather close together so as to permit a great number of arms to be inserted if desired.

The branch arms, as shown, are in the form of a nest of telescoping tubes, the

outer member of which is of the proper size to pass through the openings of the finishing shell and be properly held by the position controlling notches in the outer flange of the securing plate. The inner member of the telescoping arm has at its extremity a suitable means, such as the hook B′ shown, adapted to be secured to the ceiling and to carry an electric light therefrom. The exact design of the latter device is not material, of course.

With the arrangement above described it will be seen that all of the necessary work of making electrical connections for the various individual light wires may be made with the line wires and the fixture installed in some approximately central position in the room or shop window to be illuminated. After this has been done it will be possible for the dealer to make practically an unlimited number of variations and experiments, if necessary, to obtain the desired lighting effects in his room or window. It will be seen that the extensible branch arms being made as they are by tubular sections and without special construction except so far as the attaching member on the outer section is concerned, may be supplied to any desired length, should some unusual amount of extension be required. These arms may, as will be seen, by referring to the diagram in Fig. 6 and the structure of the center piece shown in Figs. 1 and 2, be inserted in the center piece along the lines of such a great number of different radii as to lead to practically any desired point from the center piece. In fact, it will be seen, as indicated in dotted lines in Fig. 1, that a slight angular adjustment or play is possible with this construction in each of the positions in which a branch arm may be put. By reason of this possible variation in the direction toward which the arms shall extend and by reason of the possibility of varying the amount of extension in every case just as desired, it will be seen, as indicated in Fig. 6, that practically every conceivable shape of room or shop window may be illuminated just as desired, and this illumination may be varied at the desire of the user without the necessity for calling on expert assistance, it being plainly possible for any ordinary person to effect any desired change with no more apparatus than a screw-driver.

The manner of installing the apparatus is obvious, it being merely necessary to fasten the securing plate to the ceiling by any suitable means, the finishing barrel being secured thereto by cap screws, as shown. The lower bell member of the fixture is then drawn up into position by means of the screw threaded bolt shown in Fig. 2, after the desired wiring connections have been made within the central portion of the fixture, and the line wires and the light wires passed out through the openings into which the branch arms are to be inserted. The branch arms are then inserted in position and the supporting bell member drawn up so as to hold the inner ends of said bracket arms securely between its edge and the two flanges depending from the securing plate,—the wires, of course, being previously fed into these bracket arms. When the arms are properly adjusted in the center piece and extended to the desired distance, the attached member at the outer section is fastened to the ceiling and the electric light hung therefrom.

It will be seen that I have attained the objects sought by producing a fixture which requires but one installation in position which shall be capable of being varied to give any possible desired arrangement of lights or lighting effects with the simplest sort of manipulation and without the necessity of calling upon the skilled electrician for assistance.

Having thus described my invention, I claim:

1. An electric light fixture comprising a center piece, a plurality of extensible tubular arms connected therewith, means around the circumference of said center piece for obtaining an adjustment of said arms, a member movable with respect to said center piece for engaging said arms, and means for sustaining an electric light.

2. An electric light fixture comprising a center piece having a plurality of holding means located around its circumference, a plurality of extensible tubular arms adapted to carry electric light wires held in said center piece, and attaching means toward the outer ends of the said extensible arms for securing them to an overhead support and having means for sustaining an electric light.

3. A fixture for electric lights comprising a center piece having an upper member with a depending flange therefrom, a lower member having a bearing edge exterior to but lower than the said flange, means for the vertical adjustment of said lower member, an extensible branch arm having its inner end resting on said bearing edge and engaging said flange, and positioning means on said fixture for holding the branch arm in the proper direction.

4. A fixture for electric lights comprising an upper securing plate and a lower supporting member, one of said members having a pair of peripheral flanges extending toward the other member, which other member is provided with a bearing edge extending toward the first member and between the two flanges, a plurality of extensible tubes adapted to hold electric light wires therein interposed between the said flanges and said bearing surface, and a finishing

barrel inclosing said upper member and forming a guide for the vertical movements of said lower supporting member.

5. A fixture for electric lights comprising an upper securing plate and a lower supporting member, the upper of said members having a pair of peripheral flanges of variable depth extending toward the other member, which other member is provided with a bearing edge extending toward the first member and between the two flanges, and a plurality of extensible tubes adapted to hold electric light wires therein interposed between the said flanges and said bearing surface, means for varying the vertical distance between the faces of the flanges and the said bearing surface, and a hood having means for guiding said lower supporting member during its vertical adjustment.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

WILFRID LUMLEY.

Witnesses:
H. R. SULLIVAN,
J. M. WOODWARD.