R. T. KACHEL.

GAS AND ELECTRIC LIGHT FIXTURE.

APPLICATION FILED JAN. 27, 1911.

1,007,293. **Patented Oct. 31, 1911.**

3 SHEETS—SHEET 1.

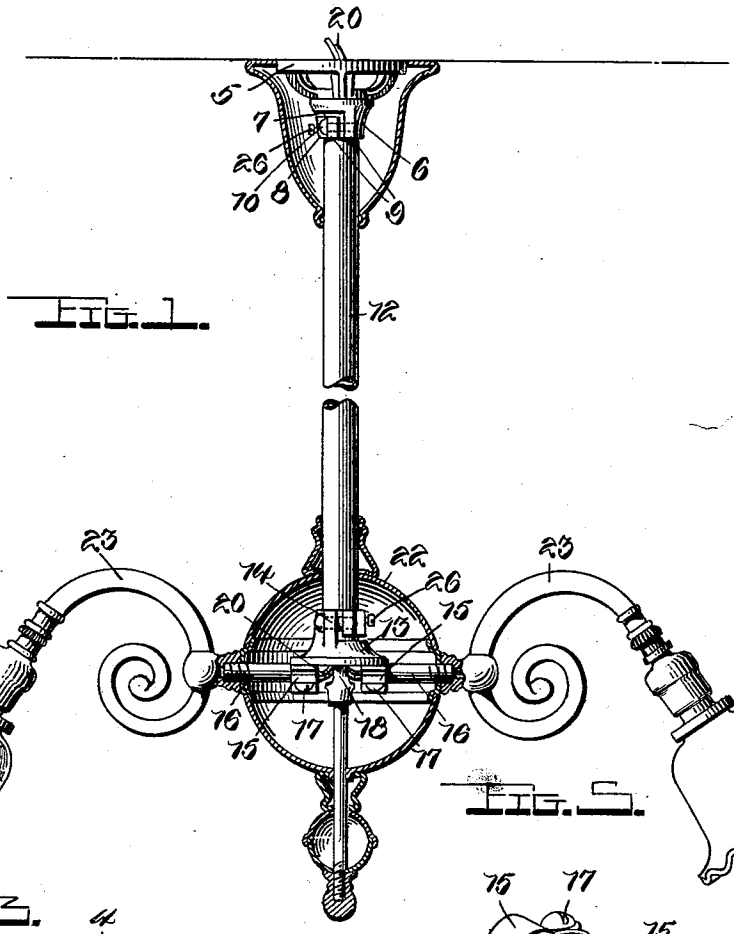


FIG. 1.

FIG. 5.

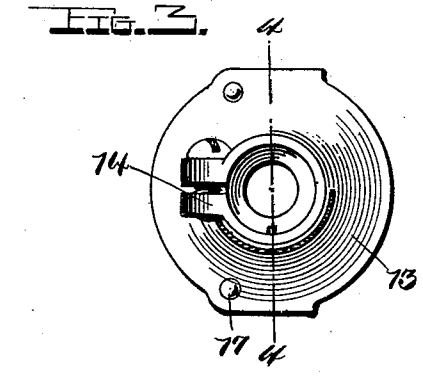
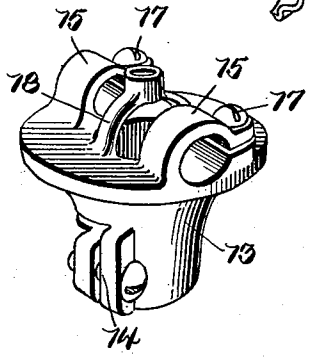


FIG. 3.



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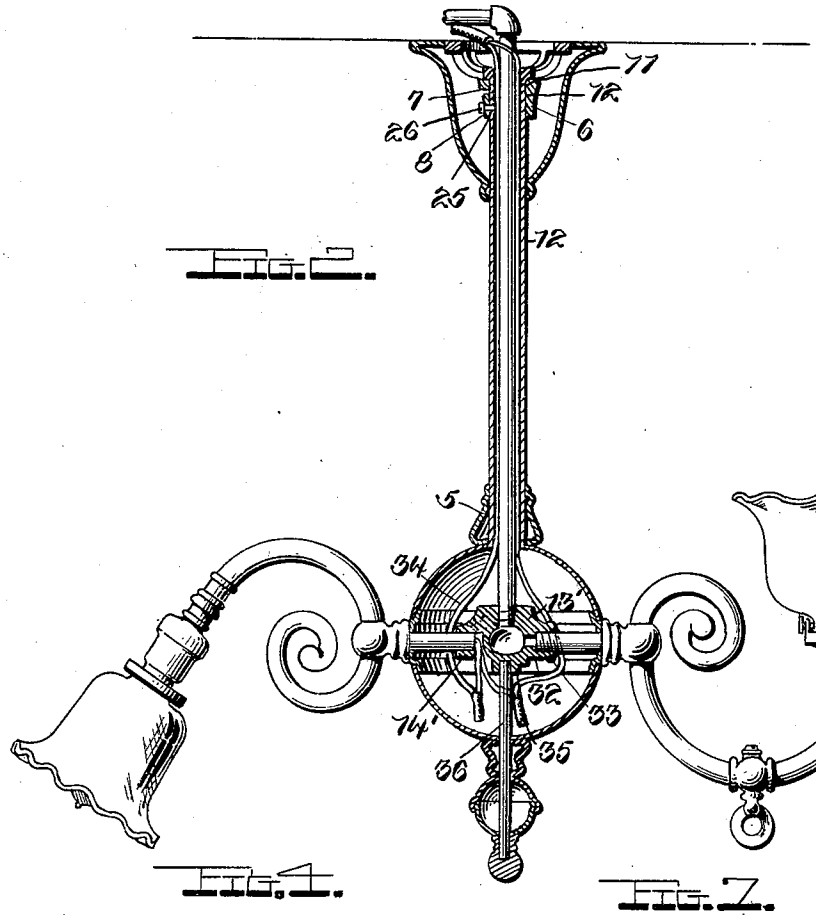
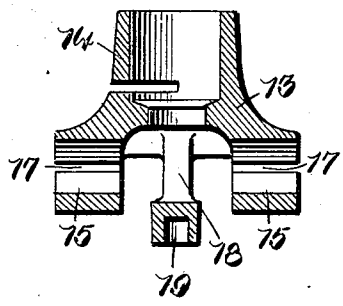
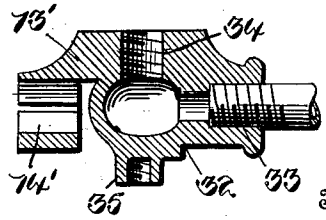


FIG. 2.

FIG. 4.

FIG. 7.





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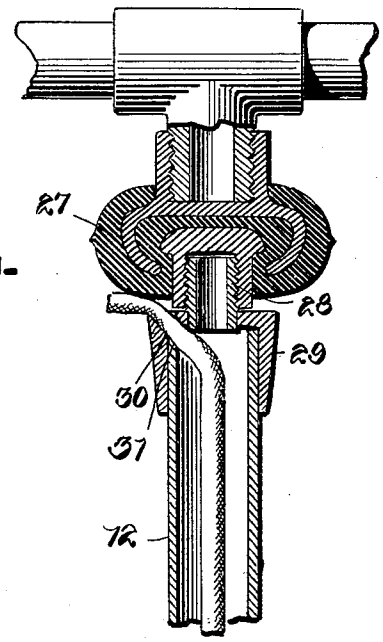


FIG. 8.

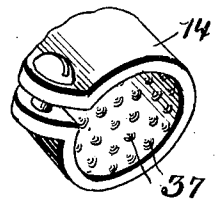
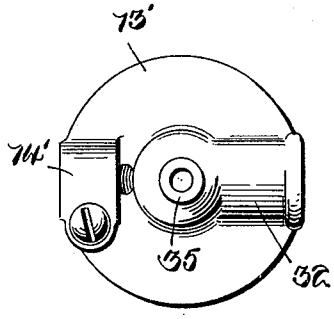
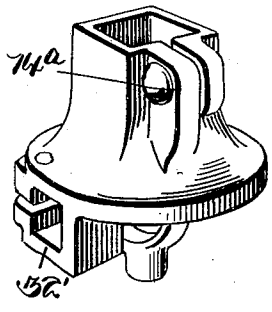


FIG. 10.

FIG. 7.

FIG. 9.





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UNITED STATES PATENT OFFICE.

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GAS AND ELECTRIC-LIGHT FIXTURE.

1,007,293. Specification of Letters Patent. Patented Oct. 31, 1911.

Application filed January 27, 1911. Serial No. 605,005.

To all whom it may concern:

Be it known that I, RUDOLPH T. KACHEL, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Gas and Electric-Light Fixtures, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in gas and electric light fixtures and has for its object to provide means for quickly and securely arranging one or more arms upon the body of the fixture to extend radially therefrom.

Another object of the invention is to provide a very simple and inexpensive form of clamp whereby the parts of the fixture may be readily assembled without liability of grounding the electric wires.

A further object of the invention is to provide a combined gas and electric light fixture whereby the gas conducting pipes and arms which incase the electric wires may be properly arranged for the combined use of electricity and gas.

Still another object of the invention resides in the provision of a fixture of the above character which may be manufactured at a nominal cost, is extremely durable in practical use and presents an artistic appearance when the parts are assembled.

With the above and other objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings in which—

Figure 1 is a side elevation partly in section showing the parts of an electric chandelier assembled; Fig. 2 is a similar view illustrating a slightly different arrangement of the parts; Fig. 3 is a top plan view of the body member of the fixture; Fig. 4 is a section taken on the line 4—4 of Fig. 3; Fig. 5 is a detail perspective view of the body member; Fig. 6 is a detail longitudinal section illustrating the arrangement of the electric light wires in the use of a blind insulating joint; Fig. 7 is a section similar to Fig. 4 showing a combined gas and electric light fixture; Fig. 8 is a bottom plan view of the same; Fig. 9 is a perspective view illustrating a slightly different form of the body member; and Fig. 10 is a detail fragmentary perspective view of the clamp illustrating a slightly modified form thereof.

Referring in detail to the drawings 5 designates the wall or ceiling bracket which may be of any preferred form and is adapted to be screwed or otherwise fixed to the wall of the apartment. This bracket has formed thereon a clamp 6 which comprises a tubular extension, split as shown at 7 for substantially one-half of its circumferential extent thereby forming a comparatively free and slightly resilient clamping portion 8. The end of this clamping portion and the tubular body are provided with the laterally disposed ears 9 through which the adjusting screw 10 is disposed, the ear which is formed upon the body of the clamp being threaded to receive the screw. The base or wall bracket 5 and the clamp 6 are longitudinally bored as shown at 11 to aline with the bore of a tubular stem 12 which is adapted to be fitted into the clamp 6. By adjusting the screw 10, the free resilient portion 8 of the clamp 6 and the body of the clamp are forced into binding contact upon the periphery of the tubular stem 12 whereby the stem is rigidly fixed in position. Upon the lower end of the stem 12 the member 13 is rigidly fixed by means of the clamp 14 which is carried thereby, said clamp being similar in all respects to that previously described. One end of this member 13 is flared to provide an enlarged end upon one side of which a clamping arm 15 is formed, said arm and the member 13 being provided in their opposed faces with semicircular seats to receive a tubular arm 16 which is rigidly held therein by means of a screw 17 disposed through the end of the arm 15 and threaded into the member 13. The member 13 is also provided with a longitudinal opening beyond the clamp 14 thereof and a spider 18 is integrally formed upon the under side of the lower flared end of the member 13 and extends over said opening, said spider being provided with a longitudinal central bore 19. Through the stem 12 and the bore of the spider 18, the main electric light wires 20 of the chandelier extend.

The exterior ornamental casing 22 of the

chandelier incloses the member 13 and the tubular stem 12 as well as the greater part of the radially extending tubular arm 15. The outer end of this arm which is disposed exteriorly of the casing 22 is threaded to receive a fanciful fixture member 23 which carries the electric light bulb. The wires 24 extend through the arm 15 and the fixture 23 and are connected to the source of current supply and to the electric light bulb in the usual well known manner.

In order to prevent the release of the stem 12 in the event that the clamps 6 and 14 should become loose, while at the same time the stem may be readily removed when desired, I provide in each end of the stem 12 a substantially semicircular opening 25 in which the end of a screw 26 which is threaded into the clamp, is disposed. One of the clamps may have formed upon its inner face a projection as shown in connection with the clamp 14, said projection fitting into the opening in the stem. When such is the case, a screw driver or other instrument will have to be employed to spread the clamp when it is desired to remove the member 13 entirely from the stem 12. For this reason the use of the screw 26 is preferred.

In Fig. 6 I have illustrated the manner in which the wires 20 are adapted to be disposed when a blind insulating joint is required in assembling the parts. In the drawing 27 indicates a blind insulating joint of well known form. This joint is threaded upon an exteriorly threaded extension 28 formed upon the clamp 29. This clamp is similar to those previously described with the exception that a hole 30 is diagonally bored through the clamping member immediately above the circumferential slit in said member and is adapted to aline at its inner end with an opening 31 provided in the end of the tubular stem 12. By providing this diagonal opening in the clamp, the tubular member 12 of the fixture may be turned in the clamp without danger of cutting the electric wires, said wires moving in the elongated opening 30.

As will be seen from Fig. 2, in the use of the combination fixture, the member 13′ is not provided with the clamp 14 as shown in Fig. 1 as the threaded connection of the gas pipe to said member and the arrangement of the radial arms in the casing are sufficient to properly support the same in position. It will also be observed that in this form of the device, the tubular casing 12 is engaged upon the periphery of the spherical casing section in which the body member 13 is located.

In Figs. 2, 7 and 8 of the drawings, I have illustrated a combined gas and electric light fixture wherein it will be observed that the body member 13′ is provided with a radially disposed protuberance or extension 32. This extension is longitudinally bored as shown at 33, and in one end of the bore a gas conducting pipe is adapted to be threaded. The member 13′ is formed upon its other face with a central boss 34 which is formed with a threaded bore to receive the main gas supply pipe. Upon the opposite side of the member 13′ to that on which the extension 32 is formed, the clamp 14′ is located to receive a radially extending tubular arm as in the previously described form of the device through which the current conducting wires extend. Upon the inner end of the hollow gas way 32, an interiorly threaded extension 35 is formed to receive the threaded end of a rod 36 upon which the lower portions of the ornamental casings are assembled.

In Fig. 9 there is illustrated a slightly different form of the device wherein the clamp 14ª to receive the tubular stem 12 and a similar clamp 32′ to receive a square tube through which the electric wires extend, are of rectangular form instead of cylindrical. The clamp of the insulating joint and of the bracket member 5 may also be made in the same form. Many other polygonal shapes may also be used in the manufacture of the fixtures, the construction and operation remaining substantially the same.

In Fig. 10 of the drawings there is shown a slightly modified form of the clamp 14 wherein the same is provided upon its inner surface with a plurality of projections 37 which are adapted to bite into the casing 12 and securely grip same to hold the parts in their assembled positions with greater rigidity and less liability of separation in the event that the clamping screws should become loosened.

From the above description taken in connection with the accompanying drawings, it is believed that the construction and operation of my improved fixtures will be fully understood.

The invention is very simple and provides means whereby the parts may be assembled with but little labor and in a minimum length of time.

It will be understood that the exterior casings which inclose the main elements of the fixture may be of various ornamental formation and constructed of any preferred material. It will also be obvious that the parts may be of such proportions as to provide for the arrangement of any desired number of the radially extending arms 15 upon the member 13. The fixture may also be manufactured at a comparatively low cost, and is extremely durable and efficient in practical use.

While I have shown and described the preferred construction and arrangement of the various elements, it will be understood that the invention is susceptible of a great

many minor modifications without departing from the essential feature or sacrificing any of the advantages thereof.

Having thus described the invention what is claimed is:—

1. In an electric light fixture, a base member having a longitudinal bore, a tubular extension formed on said member around the bore provided with a circumferential slot extending partially around the same to provide a resilient clamping portion, a tubular stem insertible into said tubular extension, a screw disposed through the end of the clamping portion of said extension and threaded into the body thereof to rigidly secure the tubular stem therein, a member provided with a longitudinal bore removably secured upon the lower end of the stem, and a clamp on said member to removably fix a radially extending arm thereon.

2. In an electric light fixture, a base member having a longitudinal bore, a tubular extension formed on said base member circumferentially slotted to form a clamp, a tubular stem insertible into said clamp and adapted to be rigidly fixed therein, means for preventing longitudinal movement of said stem in the clamp, a body member removably arranged upon the lower end of said stem, a clamping arm integrally formed with said member, and a radially extending tubular stem disposed between the arm and the body of the member to be clamped thereon.

3. In an electric light fixture, a base member, a clamp carried by said base member, a tubular stem insertible into said clamp and adapted to be rigidly fixed therein, said stem being provided with an opening in its wall, means carried by said clamp and disposed through said opening to prevent longitudinal movement of the stem, and means arranged upon the lower end of said stem to secure a radially extending arm thereon.

4. In an electric light fixture, a base member and a clamp carried thereby, a tubular stem insertible into said clamp and adapted to be rigidly fixed therein, said base member having a longitudinal bore to coincide with the bore of the stem, a body member having a clamp formed thereon for engagement on the lower end of said stem, means for preventing longitudinal movement of the stem in said clamp, and a clamp carried by said member to rigidly fix a radially extending arm thereon.

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

RUDOLPH T. KACHEL.

Witnesses:

WM. VAN BOLT, Jr.,

F. M. BERGER.