Sept. 25, 1928. 1,685,157

E. F. GOELLER

ADVERTISING DEVICE

Filed April 5, 1926 2 Sheets-Sheet 1

Fig. 1.

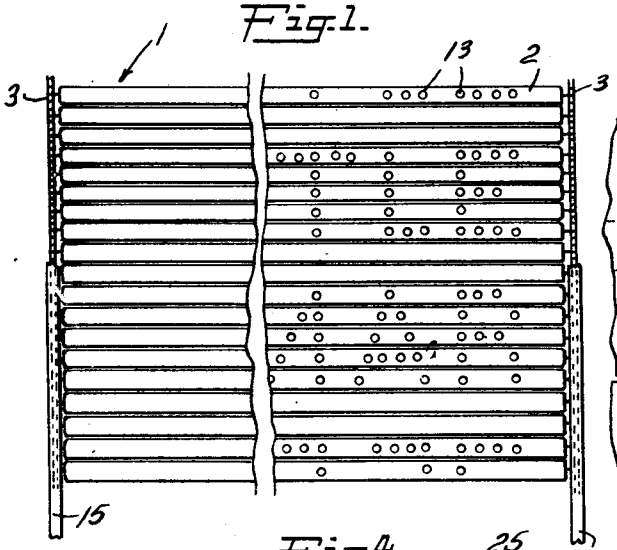


Fig. 2.

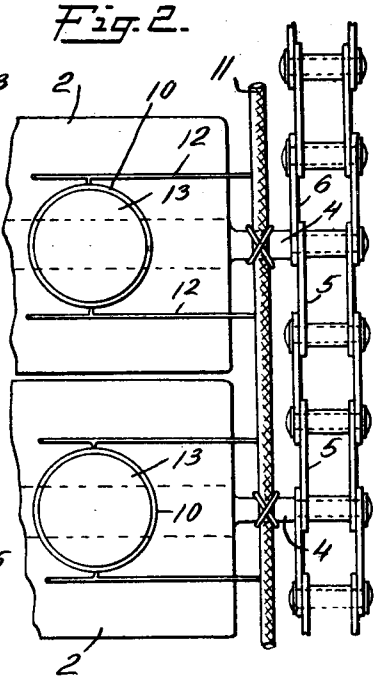


Fig. 4.

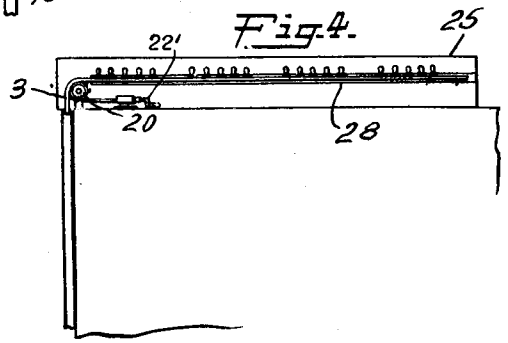


Fig. 5.

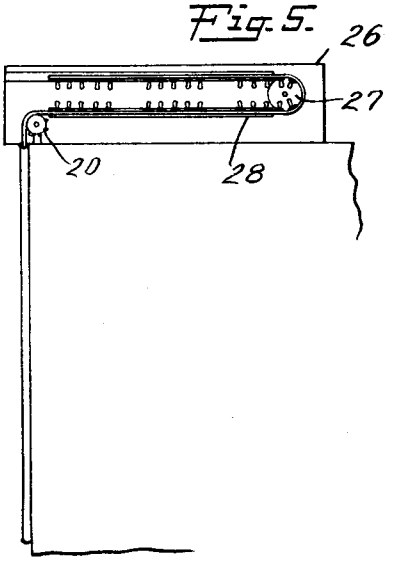
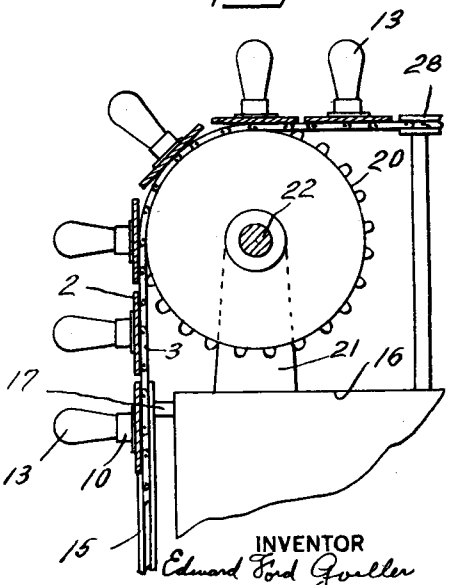


Fig. 3.



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Fig. 7.

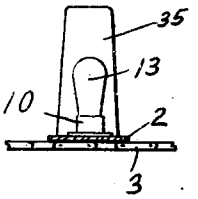


Fig. 8.

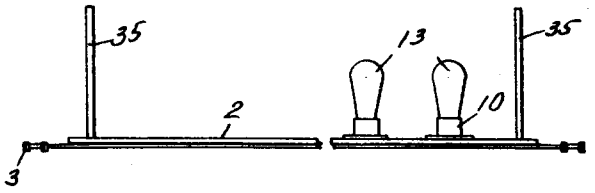


Fig. 6.

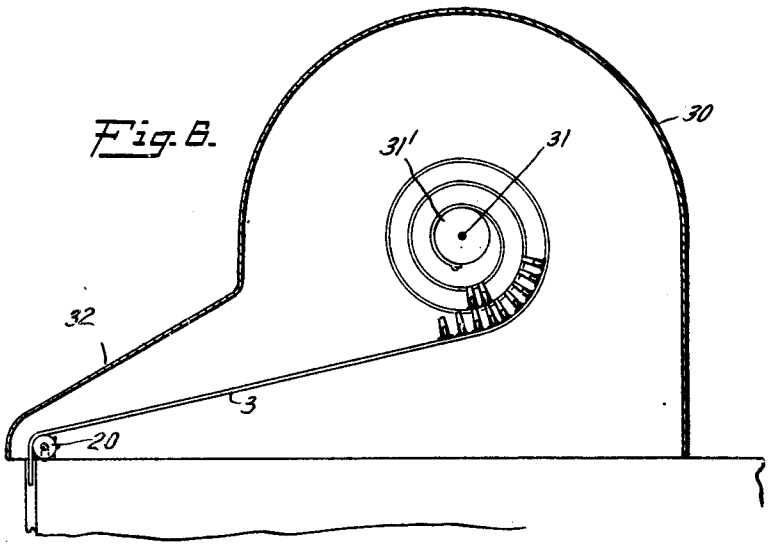


Fig. 10.

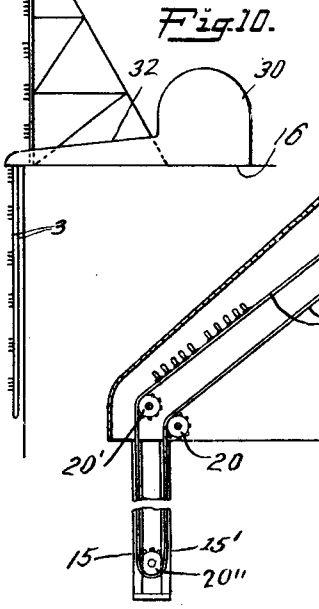
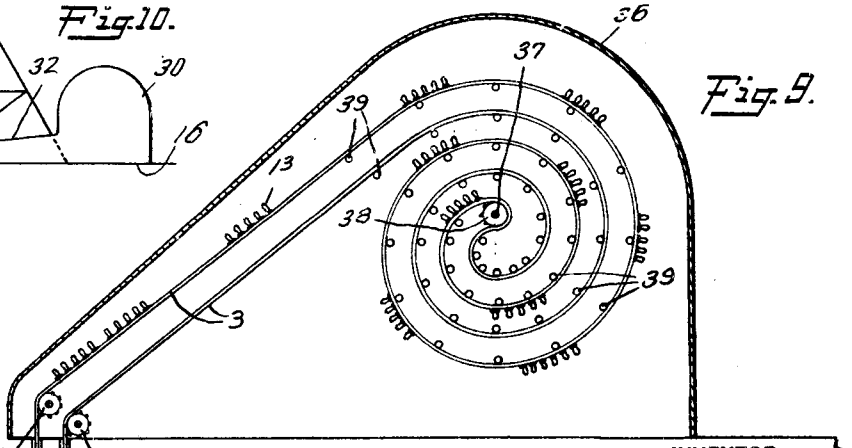


Fig. 9.



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UNITED STATES PATENT OFFICE.

EDWARD FORD GOELLER, OF NEW YORK, N. Y.

ADVERTISING DEVICE.

Application filed April 5, 1926. Serial No. 99,739.

This invention relates to advertising devices and has to do particularly with a sign which can be moved, as desired, to and from display position. The construction and arrangement of the sign is such that when it is moved to display position it forms a sign of generous proportions and when it is withdrawn it can be concealed in a small space.

The most desirable place for an advertising sign is where the sign will be observed by a large number of people, and in cities signs are placed in all available spaces, particularly in the business sections. The space available for signs in such areas is limited and consequently such space is costly. The roofs of buildings are utilized for sign space, and since the buildings in congested areas are largely for business and office purposes, they are provided with numerous windows which break up the wall space and render the space unfit for a painted sign. A sign mounted on a structure which is clear of the wall of a building cannot be used since the sign would prevent light from reaching the windows and render the rooms of the building unsuitable for use except with artificial illumination.

The present invention is directed to the provision of a sign which is adapted to utilize the wall space of buildings which has heretofore been unavailable for advertising purposes. This sign is constructed so that it may be placed on the wall of a building when the building is not occupied, as for example, early in the evening, and so that it may be withdrawn and concealed from view when the building is occupied to permit the rooms of the building to be used for ordinary purposes in the usual manner. The sign structure may carry an advertisement which is painted or affixed to the exposed surface thereof, in any suitable manner, to be illuminated by suitably disposed lamps, or the sign may carry lamps which are arranged to form the words of a message, a monogram or other figure.

In one convenient form, the invention includes a flexible sheet which is supported at its edges by chains. The flexible sheet is composed of cross members which are provided with sockets for holding lamps which may be illuminated by electrical current supplied through flexible cables. The sign is supported by members which carry the chains and these members are such as to permit the chains, together with the flexible sheet, to move thereover, so that the sign can be exposed to view or concealed, as desired. When the sign is to be exposed it is moved over the wall of a building, and when it is to be concealed it is drawn into a housing disposed on the roof or within the building. The sign structure, being flexible, can be folded or rolled within a small housing.

For a better understanding of the invention, reference will be made to the accompanying drawings, showing various embodiments thereof, and in these drawings Fig. 1 is a view of a sign in front elevation; Fig. 2 is an enlarged detail view; Fig. 3 is an enlarged sectional view showing a supporting member; Figs. 4 and 5 are diagrammatic side views showing different housing arrangements; Fig. 6 is a view showing a housing within which the sign is rolled; Figs. 7 and 8 are end sectional views respectively of the sign structure adapted for use with the housing of Fig. 6; Fig. 9 is a view of a further modification of the housing arrangement; and Fig. 10 is a diagrammatic view showing how the housing structures of Figs. 6 and 9 are used.

Referring to the drawings, the sign structure is shown in Fig. 1 as being composed of a flexible sheet 1 made up of cross-members 2, which extend between chains 3 and are connected to the links thereof by pins 4. The inner links 5 of the chains are provided with round openings through which the pins 4 extend to permit rotative movement between the pins and the links. The outer links 6 are provided with openings which may be square or which may have flattened sides, and the part the links 4 which fit therein are of similar shape. This prevents the pins from turning and thus holds the cross-member in vertical alignment with the chains. The cross-members of the flexible sheet are provided with sockets 10 adapted to receive electric lamps 13. The sockets are positioned so that the lamps carried by the sheet form the words of the message, a monogram or other figure. Electric current for energizing the lamps is supplied through a flexible conductor 11 having leads 12 extending therefrom, which are connected to the sockets on the cross-members. The flexible conductor 11 may extend the length of the flexible sheet and may be secured to the cross-members or the pins, as for instance, by means of suitable ties 12.

When the sign is moved from its housing to exposed position, Figs. 1 and 3, the chains enter channel guide members 15 fixed to the side wall of a building 16 by means of brack-

ets as shown at 17 and serving to guide the chains and hold the sheet in place. These supports hold the flexible sign structure rigidly with respect to the building and prevent movement or flapping of the sign which may be caused by the wind.

Mounted on the roof of the building adjacent the edge thereof are supporting members 20. There is one member for each chain and these members may take the form of sprockets rotatably mounted on a shaft 22 which is carried by brackets 21.

These supporting members may be disposed within a housing which extends rearwardly and which receives and conceals the sign. Where the roof space on the building permits, this housing may be of a relatively long structure as shown at 25 in Fig. 4 in which the sheet lies flat without folding. Where the roof space is not sufficient to permit the use of such a housing, a housing such as shown in Fig. 5 may be provided. This housing 26 is provided with a rotatable support 27 for each chain and the sign is folded back upon itself as indicated. These housings are provided with channel guides 28 which support the chains and the flexible sheet. In the structure shown in Fig. 4 the support 20 may be provided with a crank 22′ by which it is rotated to move the sign into or out of the housing. If desired the support may be provided with motive means, such as an electric motor which can be operated by the manipulation of an electric switch within the building, or by a switch which is automatically thrown by suitable timing mechanism. In Fig. 5, the support 20 or the support 27 may be provided with such rotating means as crank 22′ shown in Fig. 4 in which case one or the other will be in the nature of an idler sprocket.

In the form shown in Fig. 6 the housing 30 is provided with a shaft 31, which extends across the housing and which has a support 31′ adjacent its ends for each of the chains. In this form the flexible sign sheet is rolled upon itself. Suitable mechanism such as crank 22′ in Fig. 4 may be provided for rotating the shaft 31, and the supports 20 may rotate freely upon their shaft. In this form the housing is provided with an outlet 32 of a low height. As shown in Fig. 10, the building 16 is provided with an ordinary advertising sign 33, and the relatively low outlet 32 of the housing extends under this sign with the large portions thereof, in which the flexible sign is adapted to be wound, disposed to the rear. The sign can thus be installed on a building without interfering with the present sign structures.

When a housing such as shown in Fig. 6 is to be used with a self-illuminated sign, the cross-members of the flexible sheet are provided with protective members 35 for protecting the lamps carried by the flexible sheet. There is one protective member adjacent the end of each cross-member and when the flexible sheet is wound upon itself the protective members contact with the next adjacent convolution and prevent the lamps from breaking. Where the flexible sheet of the sign is of considerable width one or more protective members may be provided along the length of the cross-members to secure a more rigid support throughout the length of each cross-member.

In the form shown in Fig. 9, the supporting chains 3 are endless. There are two rotatable supports 20, 20′ on each side of the device mounted adjacent the edge of the building. The endless chains extend over the supports 20′ down the wall of the building through a guide 15 where the chains extend around an idler support which may be in the form of a sprocket 20″ and then upwardly through the channel guide 15′ and over the support 20. Within the housing 36 the endless chains and the flexible sheet are disposed of by being rolled into a small compass.

For this purpose the housing is provided with a shaft 37 which carries at its ends supporting members 38 which may also be in the form of sprockets for the chains. The housing is also provided with spacing devices 39. These devices may be in the form of rods or rollers which extend across the housing and over which the chains and the flexible sheet are rolled. These spacing elements are positioned far enough apart to prevent contact of the electric lamps 13 of the sign with the next adjacent layer when the sign is rolled within the housing. The shaft 37 may be provided with a crank similar to crank 22′ shown in Fig. 4 for rotating the same whereby the sign may be lowered over the wall of the building or retracted and wound within the housing. If desired the shaft may be provided with motive means, such as an electric motor, in which case, if desirable, the motor may be actuated by timing mechanism. The housing 36 may have a contour similar to the housing of the form shown in Fig. 6 and the form shown in Fig. 9 can be utilized in the same manner as indicated in Fig. 10.

In the operation of the device the chains are moved over their several supports, or sprockets, to lower the sign over the wall space of the building at the proper time. This may be done in the evening when the building is unoccupied. The sign is thus displayed throughout the evening and night and at the proper time, for example, the following morning when the building is to be occupied, the chains are moved over their supports and the sign structure concealed on the roof of the building within the housing. In the form shown in Figs. 6 and 9 the central shafts which extend through the housing are preferably provided with means whereby

they may be rotated to lower and retract the sign. In this case the supports at the edge of the building over which the chains move may be idlers. If desired, however, the supports at the edge of the building may be provided with a rotating means and the central shaft in the housing may be in the nature of an idler. Where the sign structure is particularly large it may be desirable to connect the supports at the edge of the building and the shaft in the central part of the housing with suitable chains and sprockets whereby all of the members are moved simultaneously to lower or retract the sign.

With this structure a sign can be displayed over the wall space of a building otherwise unavaliable for the purpose, and this sign structure may be of generous proportions in keeping with large signs of the present day. Owing to the flexible nature of the structure it can be concealed on the roof of the building in a relatively small space so that in congested areas where space is at a premium a large sign can be displayed at a desired time, especially at night, and the sign structure may be concealed in a small compact compartment during the day time.

I claim:

1. An apparatus for displaying an advertising sign over the wall of a building, which comprises a flexible sheet carrying lamps which are arranged to present an advertisement, a take-up device to which the sheet is connected, the sheet being adapted to be withdrawn from the take-up device and supported over the wall of the building to display the advertisement and the take-up device being adapted to retract and fold the sheet upon itself to conceal the same, and means for spacing the folds of the sheet to prevent breakage of the lamps.

2. An apparatus for displaying an advertising sign over the wall of a building, which comprises a housing adapted to be mounted on a portion of the building and substantially at the edge of the outer wall of the building, this housing having an exit opening adjacent the wall on which the sign is to be displayed, a flexible sheet having a surface carrying an advertisement, take-up means within the housing to which the sheet is connected and arranged for drawing the sheet into and letting it out of the housing, guide means adjacent the exit opening at the edge of the said wall for guiding the sheet over the edge whereby it may be supported along said wall, lamps mounted on the sheet to illuminate the advertisement and conductors for supplying current to the lamps.

3. An apparatus for displaying an advertising sign over the wall of a building, which comprises the combination of a housing mounted on a portion of the building and adjacent the outer wall thereof, a flexible sheet adapted to be drawn into and let out of this housing, this sheet being made up of a plurality of relatively rigid units connected flexibly together and forming a display surface, illuminating means on said units, guide means adjacent the edge of the wall for guiding the sheet over the said edge to display position and take-up means connected to the sheet for moving the sheet into and out of the housing.

4. An apparatus for displaying an advertising sign over the wall of a building which comprises the combination of a flexible sheet consisting of a pair of chains disposed in spaced relation and connected by cross members, sockets on these cross members for receiving electric lamps for illuminating the sign, an electrical conductor extending along the sheet for supplying current to the lamps, a take-up device mounted to the rear of the building wall and supports for the chains mounted adjacent the building wall, the chains extending over these supports and being connected to the take-up device whereby the sheet may be suspended over the wall in display position and retracted by the take-up device and concealed.

5. An apparatus for displaying an advertising sign over the wall of a building which comprises the combination of a pair of endless chains disposed in spaced relation and carrying a flexible sheet having electric lamps for illuminating the sign, a housing mounted adjacent the edge of the building wall, supports mounted adjacent the building wall, the chains extending through the housing, over the supports and being suspended from the supports down the wall of the building, spacing elements within the housing over which the chains pass in a roll formation, these spacing elements being disposed in such a way as to prevent breakage of the electric lamps, and a guide within the housing over which the chains pass, this guide and the supports being rotatable whereby the chains may be moved thereover to position the sign over the side wall of the building of within the housing.

6. An apparatus for advertising purposes, comprising a series of adjacent strips forming a flexible sheet carrying an advertisement, a housing arranged to receive the sheet in folded condition and mounted on a part of a building substantially at the edge of the outer wall thereof, this housing having an exit opening adjacent one of the walls, take-up means within the housing arranged to draw the sheet into the housing to let it out of the housing, guide members disposed adjacent the exit opening of the housing for directing the sheet over the outer wall of the building into and out of display position, and means carried by the sheet for illuminating portions thereof.

In testimony whereof I affix my signature.

EDWARD FORD GOELLER.