

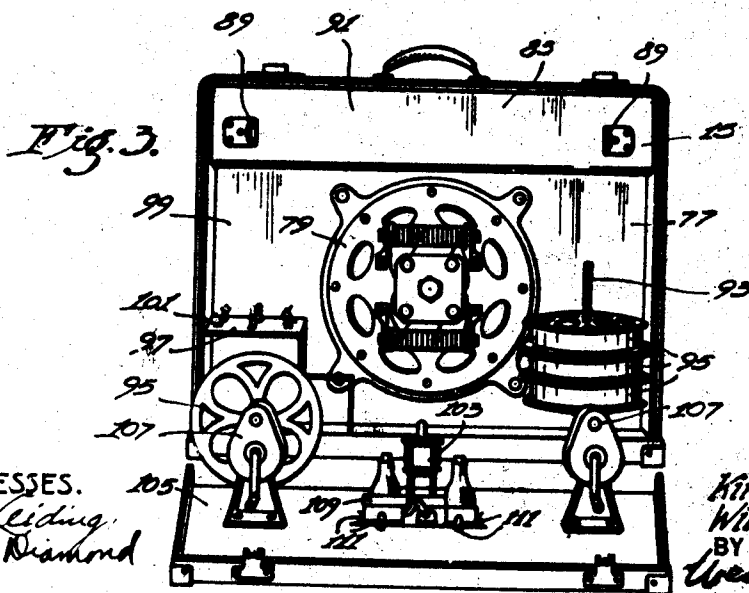
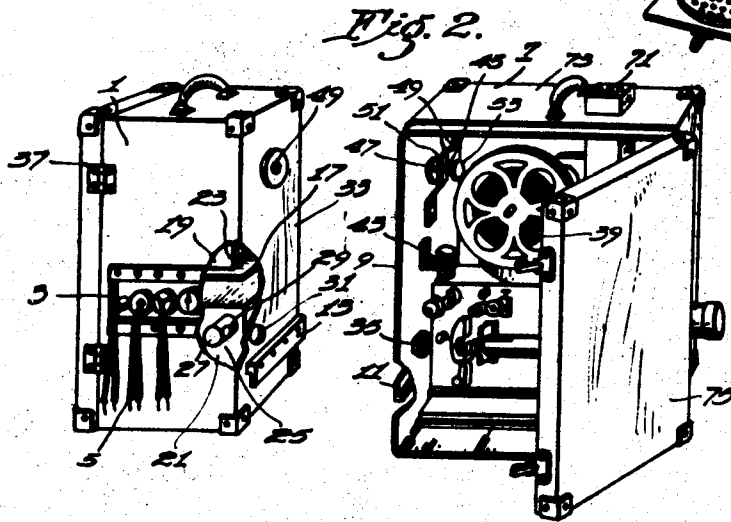
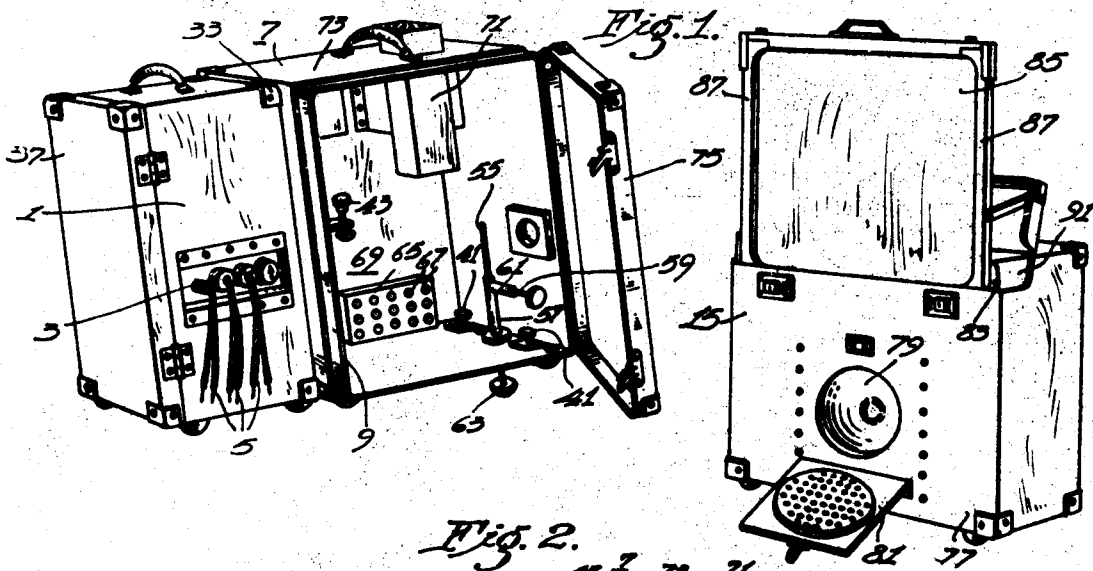
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MOTION PICTURE APPARATUS

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MOTION-PICTURE APPARATUS

Application filed February 2, 1931. Serial No. 512,944.

Our invention relates to acousto-cinematographic apparatus and has particular application to portable acousto-cinematographic apparatus.

6 The field of usefulness of portable talking-motion-picture apparatus is extremely broad. Such apparatus may, of course, be utilized for amusement purposes in homes and in localities where the apparatus of the ordinary type is not available. However, this application of the apparatus constitutes only a restricted region of its wide field of utility.

10 The apparatus may be used for advertising purposes: In certain instances it may go so far as to supplant the ordinary salesman in giving a sales talk. Thus, a portable equipment may be shipped to the executives of a firm in a foreign country. Among the film rolls shipped with the machine may be included several rolls in which are described a group of articles in which the domestic firm is endeavoring to interest the foreign firm.

15 Another important use of the apparatus lies in the educational field. Faithful records of important experiments may be recorded with facility. A portable acousto-cinematographic machine provides a means whereby these records may be widely distributed in a simple and an inexpensive manner.

20 However, the provision of a portable talking-motion-picture machine is not at all a simple matter. In addition to the machine which is ordinarily comparatively heavy and cumbersome, an amplifier, a loud speaker, a screen, film rolls and a plurality of film-handling mechanisms, such as reeling devices and splicers, must be transported. The provision of suitable containers for this equipment is a considerable problem.

25 It is, accordingly, an object of our invention to provide portable cine-acoustic equipment.

30 Another object of our invention is to provide acousto-cinematographic apparatus so disposed that it may be transported with facility without being disarranged.

35 A further object of our invention is to provide apparatus for manually transporting all of the elements necessary in operating a photo-acoustic equipment.

A more specific object of our invention is to provide a plurality of containers for the elements of an acousto-cinematographic equipment so constructed and so arranged that the complete equipment may be easily transported by, at most, two men.

More specifically stated, it is an object of our invention to provide a plurality of containers for acousto-cinematographic apparatus that shall be so constructed as to render the apparatus useable, after it has been transported from one destination to another, within a short time after it arrives at its final destination.

40 According to our invention, we provide three containers, one container having the acousto-cinematographic machine disposed therein; the second having the electrical amplifying equipment disposed therein, and the third having the remainder of the apparatus necessary in the equipment disposed therein.

45 The first container is provided with a plurality of openings through which the picture-projecting light beam and the sound-reproducing light beam are transmitted. The second container is adapted to be fastened to the first container in such position, relative to it, that an opening in its wall leading to the photo-sensitive cell coincides with the opening in the wall of the former which is provided for projecting the sound exciting light beam.

50 The first container is also equipped with the necessary apparatus for fastening the machine, for adjusting its vertical position and for removing the heat energy generated in the equipment.

55 The third container has a loud-speaker disposed in one wall thereof and is equipped with a chamber in which a roll screen is fastened. The roll screen may be unrolled from the chamber and held in a plane substantially parallel to one wall of the container. The cover of this container may be entirely removed therefrom and have a reeling device and a support for a film splicing device secured thereto which, under ordinary circumstances, is carried on a base disposed within the container.

60 The novel features that we consider char-

acteristic of our invention are set forth with particularity in the appended claims. The invention itself, however, both as to its organization and its method of operation, together with additional objects and advantages thereof, will best be understood from the following description of a specific embodiment, when read in connection with the accompanying drawing, in which:

10 Figure 1 is a view, in perspective, illustrating the disposition of containers, constructed according to our invention, relative to each other, when in operable position;

Fig. 2 is a view, in perspective, showing the container for the amplifying system and the container for the machine, a section being broken away;

Fig. 3 is a view, in perspective, showing the loud-speaker and the screen container with its cover displaced.

The apparatus shown in the drawing comprises a container 1 provided with a plurality of female sockets 3 in which the power-supply leads 5 of the system are adapted to be removably secured, a second container 7 having a bar 11, of transverse L-section, fastened to one of its surfaces 9 which is adapted to engage a second bar 13 of transverse L-section, secured to the first container, and a third container 15 constructed as will be described hereinafter and independent of the other two.

In the interior of the container 1, a shelf 17 is secured. The shelf 17 separates the container into an upper chamber 19 and a lower chamber 21. A power-supply unit 23 is disposed in the upper compartment 19, and an amplifying unit 25 is disposed in the lower compartment 21 of the container 1. The amplifier 25 is provided with a photo-cell 27, the window 29 of which faces an opening 31 in a wall 33 of the container 1 that coincides with a similar opening 35 in the adjacent wall 9 of the second container 7. The container 1 is equipped with a hinged door 37 that is adapted to be locked in any well-known manner.

The second container 7 is adapted to support the machine 39, of the type described in a copending application Serial No. 436,552, to E. W. Reynolds filed March 17, 1930, and assigned to Westinghouse Electric & Manufacturing Company, and has a plurality of clamps 41 and 43 disposed therein whereby the machine 39 is held rigidly therein. In Fig. 1, the container 7 is illustrated without the machine 39, for purposes of clarity.

The container 7 is, moreover, equipped with a threaded stud 45 to traverse a boss 47 mounted in the wall 9 and to engage the threads in a boss 49 mounted in the wall 33, of the amplifier container 1, that is adjacent to the wall 9 of the projector container 7. The stud 45 is adapted to be held in its outermost position by a flat spring 51 fastened to the interior

wall 9 of the container 7 and engaging its head 53.

When the system is operated, the two containers 1 and 7 are engaged in the bars 11 and 13 of L-section, to which reference was made hereinabove, and are held rigidly by the co-action of the stud 45 and the threaded boss 49.

The complete unit thus formed is adapted to be tilted, as illustrated in Fig. 1, by the action of a rod 55 that is adapted to slide in a hollow cylindrical bar 57 and to be fastened by a stud 59 that traverses a threaded arm 61, communicating with the opening in the hollow bar 57, and engages with the bar 57. The bar 57 is slotted in the region of the arm 61 and, therefore, pinches the rod 55 to hold it fixed. The rod 55 has a knob 63 secured to its lower end, whereby the unit may be supported in any desirable inclined position.

The projector container 7 is, furthermore, equipped with a felt block 65 having a plurality of openings 67 milled therein. The block 65 is fastened in the lower portion of one wall 69 of the container 7, and its openings 67 coincide with corresponding openings (not shown) on the side wall 69 of the container. The perforated block 65 cooperates with a flue 71 projecting from the upper wall 73 of the container 7 to remove the heat energy generated therein.

The felt block 65 provides the necessary sound insulation and prevents the noise of the projecting machine from interfering with the performance.

It is to be noted that the problem of the disposition of the heat energy is not an inconsiderable one and requires considerable thought, since the energy generated in the small region by the projection lamp and the sound-reproducing lamp of the machine is considerable.

The projector container 7 is provided with a hinged door 75 which is adapted to be locked in a manner similar to that for the door 37 on the container 1.

The third container 15 has a translating device 79, such as a loud-speaker, centrally secured to one of its walls 77 and the wall 77 is, moreover, provided with a cover 81 hinged below the loud-speaker and adapted to be locked over it, when the system is not in use. An elongated chamber 83 of which the wall 77, having the loud-speaker 79 secured therein, forms one boundary, is located in the upper portion of the container 15 and has a roll screen 85 secured therein. The screen 85 may be unrolled from the enclosure 83 and held in a vertical position by a plurality of bars 87 supported in the upper wall of the container 15 and adapted to be carried in its interior. A plurality of brackets 89 are supported on the rear wall 91 of the screen chamber 83 and are capable of supporting the necessary lead wires (not shown).

The screen enclosure 83 is adapted to be suitably locked when the system is not in use.

In the interior of the enclosure 15 is disposed a bar 93 on which a plurality of film reels 95 may be supported. A block 97 fastened to the wall 99 of the enclosure 15, is provided with a suitable system of clamps 101 whereon a film-splicing device 103 is rigidly held when the system is transported and the splicer 103 is not in use.

One wall 105 of the container 15 is removable and has the elements 107 of a film reeling device secured thereto, and is also provided with a block 109 which has a plurality of clamps 111 to support the film-splicing device 103 when the apparatus is in use. The removable wall 105 may be securely fastened to the container when the apparatus is transported. It may be mentioned that the film splicer 103 is adapted to be disposed between the elements 107 of the relay device where it is ordinarily most useful.

The particular arrangement and structure of the containers 1, 7, and 15 described hereinabove lends the apparatus considerable tractability. In transporting the system, the machine and the amplifier may be carried by one man, while a second man carries the loud-speaker, the screen, and the further necessary appurtenances of the system. The system may thus be transported from one place to another with considerable speed and facility.

Although we have shown and described certain specific embodiments of our invention, we are fully aware that many modifications thereof are possible. Our invention, therefore, is not to be restricted except insofar as is necessitated by prior art and by the spirit of the appended claims.

We claim as our invention:

1. A portable talking-motion-picture apparatus adapted to be readily transported by hand to any desired place of use and there quickly assembled for use comprising one container having an opening in a wall thereof and enclosing a sound-on-film projection machine comprising film-moving mechanism together with a cooperating light source and optical system alined with said opening to project a picture-beam through said opening, and a second optical system to project a light-beam modulated in accordance with a sound-record on the film through an aperture in another face of said container, a second container having an aperture in one of its walls and enclosing a photo-electric device alined with the last said aperture and electric amplifying means connected to amplify the current of said photo-electric device, and means on the containers for removably supporting said containers with the aforesaid apertures in their respective walls so alined that the sound-modulated

light-beam impinges upon said photo-electric device.

2. A portable talking-motion-picture apparatus adapted to be readily transported by hand to any desired place of use and there quickly assembled for use comprising one container having an opening in a wall thereof and enclosing a sound-on-film projection machine comprising film-moving mechanism together with a cooperating light source and optical system alined with said opening to project a picture-beam through said opening, and a second optical system to project a light-beam modulated in accordance with a sound-record on the film through an aperture in another face of said container, a second container having an aperture in one of its walls and enclosing a photo-electric device alined with the last said aperture and electric amplifying means together with a source of direct current therefor connected to amplify the current of said photo-electric device, and means on the containers for removably supporting said containers with the aforesaid apertures in their respective walls so alined that the sound-modulated light-beam impinges upon said photo-electric device.

In testimony whereof, we have hereunto subscribed our names this 27th day of January, 1931.

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WILLIAM O. OSBON.

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