

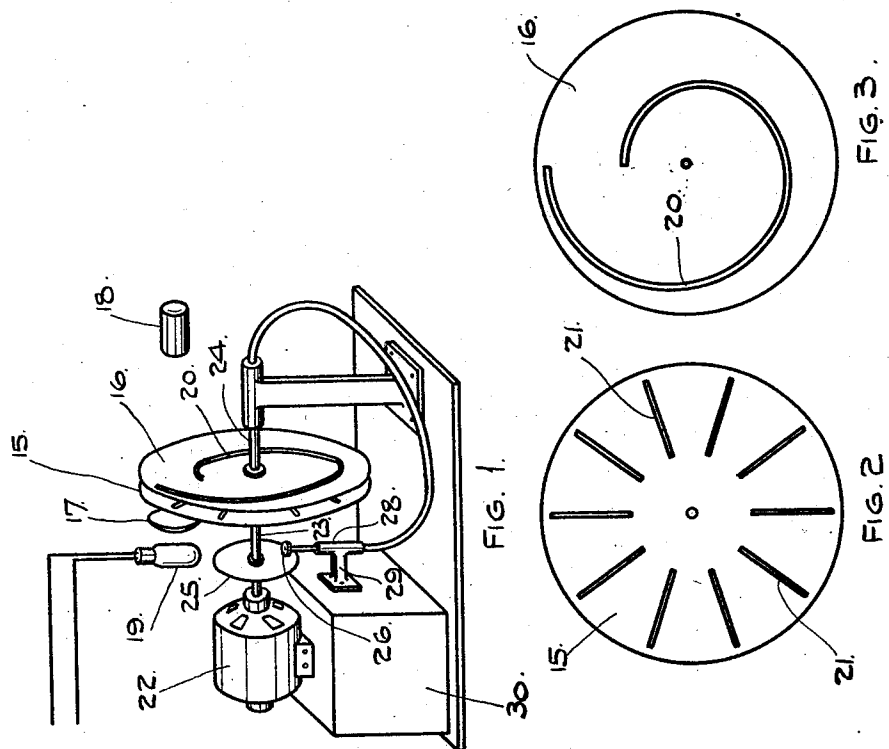
April 21, 1931.

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1,801,756

TELEVISION

Filed May 22, 1929



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TELEVISION

Application filed May 22, 1929. Serial No. 365,051.

The invention relates to television, as described in the present specification and illustrated in the accompanying drawings that form part of the same.

5 The invention consists essentially of the novel features of construction pointed out broadly and specifically in the claims for novelty following a description containing an explanation in detail of an acceptable form of the invention.

10 The objects of the invention are to overcome the limitations so far found practical in regard to the size of the image and to make use of every bit of light available so as to
15 produce a much brighter image and therefore capable of considerable enlargement by lenses; to reduce the dimensions of the scanning disc required to transmit a fair sized image by omitting the customary spaced
20 holes in scanning discs and replacing these by an arrangement of slots applied in a particular manner in the operation thereof; and to limit the space required for apparatus used in television and lighten the same, and
25 thereby obviate the necessity of operating the rotated parts at a comparatively low speed, which is essential in large wheels and discs well known in this art; to emphasize the details in the transmission of the images and give forth a much more pleasant effect.

30 In the drawings, Figure 1 is a perspective view showing in an equipment for television a photographing apparatus including scanning discs, photo-electric cell and operating
35 motor.

Figure 2 is a plan view of the rear disc of the two shown in Figure 1.

Figure 3 is a plan view of the front disc.

40 Like numerals of reference indicate corresponding parts in the various figures.

In television it is of course well known and common practice to use perforated discs for scanning purposes. These discs usually rotate at a fairly good speed and distribute
45 a spot of light over a screen.

There are many ways of arranging the perforations and this part of the equipment in television has been developed considerably by those interested in the art, also there have
50 been slotted discs used in overlapping ar-

55 rangement, but in this invention the discs are slotted, but they are concentric, and it is this concentric setting of the discs and the slots therein that is accountable for the particular feature of the invention, that is to say, without increasing the size of the discs a considerable area may be covered with light, or the size of the photographing image can be effectually increased.

Referring to the drawings, the two discs, 60 indicated by the numerals 15 and 16 are arranged between the lenses 17 and 18, the lens 18 being the photographic lens in front of the fore disc 16, the lens 17 being the concentrat- 65 ing lens behind the rear disc 15 and in front of the photo-electric cell 19.

The aligning of the lenses and the photo-electric cell through the discs 16 and 17 is in a path clear of any other part of the apparatus, and the convolute slot 20 is always
70 in this path during rotation, also each radial slot in the rear disc 15 extending inwardly from adjacent to the edge in a radial direction registers with the convolute slot, thus embracing the whole arm occupied by the
75 image.

It has been found desirable by those experimenting and practicing in this art, for one disc to travel at a different speed than the other disc, therefore the disc 15 travels at
80 a high speed, compared to the disc 16, and this is accomplished by driving the shaft 23 direct from the electric motor 22, and the sleeve shaft 24 encircling the shaft 23 from the friction wheel 25 in engagement with the
85 friction disc 26, said friction wheel 25 being connected from the shaft 23 by the flexible shaft 27, and said disc 15 being fixedly mounted on the sleeve shaft 24, while said disc 16 is fixedly mounted on the direct
90 driven shaft 23.

The friction wheel 25 is mounted in the bearing 28 forming part of the bracket 29, radially secured to the motor stand 30.

It will be thus seen that in this particular
95 equipment the image is transmitted through the lens 18 by means of the distribution of the light through the slotted discs, this light is conveyed to the photo-electric cell through the lens 17, and it is the movement and
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spread of this light in conformance with the image to be transmitted that creates the necessary impulses which may be suitably amplified and delivered to the receiving end.

5 What I claim is:—

1. In television, discs individually mounted from a common center and driven at selected and different speeds and having respectively radial slots in the one disc extending inwardly to the extent of the depth of a continuous convolute slot in the other disc extending inwardly from the outer field for a chosen distance, said slots forming registering scanning apertures and cooperating
10 with a lens directed through the upper rotating section of the combined discs and a photo electric cell therebehind.

2. In television, an outer disc having a scanning aperture describing a convolute curve partially around the center, an inner disc having a plurality of radially and inwardly extending scanning apertures cooperating with the aforesaid scanning aperture, a shaft mounting for said outer disc
15 journaled in suitable bearings and driven, a sleeve shaft mounted on the said shaft, and carrying said inner disc, a gear mechanism connecting said shafts for driving said sleeve shaft at a different speed in relation to said driven shaft, a lens directed to said outer disc and a photo electric cell set behind said inner disc.

3. In television, an outer disc having a scanning aperture describing a convolute curve partially around the center, an inner disc having a plurality of radially and inwardly extending scanning apertures cooperating with the aforesaid scanning apertures, a shaft mounting for said outer disc
20 journaled in suitable bearings and driven, a sleeve shaft mounted on the said shaft, and carrying said inner disc, a friction member mounted on said sleeve shaft, a friction roller engaging said friction member and mounted on a shaft suitably journaled, a flexible shaft connecting said driven shaft to said roller shaft, a lens directed to said outer disc and a photo electric cell set behind said inner disc.

50 Signed at Montreal, Canada, this 28th day of March, 1929.

FRANK MORSE ROBB.

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