

INVENTION

# Invention Hastens Coming of Television in Movie Theatre

## New Type Projector, Having Transparent Scanning Disc, Allows Images to Remain Continuously on Receiving Screen

TELEVISION to be shown on a large screen in the theatre is a step nearer reality following the invention in the laboratories of C. Francis Jenkins in Washington, D. C., of a new type of projector for the receiving set.

In the new apparatus a fixed lantern slide on which the objects move instead of being stationary as they are on common still slides takes the place of the flying light-spot system of reproducing the picture. This electrical rather than photographic scanning is accomplished by the substitution of a transparent scanning disc, which contains wires running out radially from its center like the spokes of a wheel, for the common metal disc containing a ring of pin-holes near its edge, Mr. Jenkins explained.

The inventor said that the new method puts 3,600 times more light on the screen than the old pin-hole scanning system. Light to the screen is never cut off except by images of the objects and these images remain on the screen all the time, it was pointed out. Never is the screen, or any part of it blank, as is the case even in motion picture projection for about one-third of the time.

The arrangement of apparatus, with which Mr. Jenkins has been able to accomplish in the laboratory what has been impossible even with well-developed motion picture projection, is very simple.

### Scanning Disc Flat

Instead of being vertical, the transparent scanning disc is flat, and immediately beneath its wire spokes, which end where the usual metal disc would have pin-holes, there is a glass plate containing a thin film of an acid. The wires and the acid are subject to voltage controlled by in-coming signals.

A high voltage will cause sparks to jump from the ends of the wires to the acid. At low voltages there will be no spark. And each spark, Mr. Jenkins said, decomposes the acid and forms an air bubble in it. The bubble causes a dark spot to appear on the screen, but it quickly rises to the surface and breaks before another and slightly different

image is formed in about one-fifteenth of a second.

"The projected picture on the screen is, therefore," Mr. Jenkins explained, "exactly like the usual lantern slide picture except that it has motion; or like a motion picture except that it is made up of changing picture elements instead of changing picture frames on a film. Incidentally, the elementary picture dots are so blended that they are as inconspicuous on the theatre screen as the dots of a newspaper illustration."

This system is still in the laboratory stage of development.

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VITAL STATISTICS

## Child Deaths Lower In Spite of Depression

IN SPITE of the continuing business depression and increasing unemployment, the deathrate for children between one and fourteen years of age among families of insured wage earners was lower during 1931 than 1930, offi-

cers of the Metropolitan Life Insurance Company have just found from a statistical study of their records. In 1931 this deathrate was 2.65 per 1,000, while in 1930 it was 2.70 per 1,000. During the period from 1911 to 1915 it was 6.14 per 1,000.

The improvement is especially gratifying considering the changes in family economy which took place as a result of increasing unemployment during 1931, the officials pointed out.

"Much of the improvement in child mortality in 1931, as compared with the figures for 1930 and 1911-1915, can be ascribed to the cumulative effect of twenty years of work for child health by the public and private health promotion agencies of the country," they stated.

### Health Services

"Part of the excellent record of the year 1931, itself, resulted from the continuation in that year, under most trying circumstances, of the health services established on the patterns laid down by the pioneers of child health conservation."

There was a greater decline in the death rate for children from one to four years than for the older children, the figures showed. This is considered a reflection of the decline in diphtheria mortality and in deaths from the other three important diseases affecting this age group, measles, scarlet fever and whooping cough. The whooping cough deathrate was lower in 1931 than at any time on record.

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### WHERE THE TWAIN HAVE MET

*East meets West under the beneficent light-giving symbol of Aten, the Sun's Disk, selected as God's hieroglyph by the enlightened Pharaoh Ikhaton, who was poor Tutankhamon's father-in-law. This splendid allegorical relief stands over the entrance of the Oriental Institute at the University of Chicago. In the background the Men of the West and their accomplishments face the Men of the East and the monuments of their ancient glory.*