Philco Photo-Electric Phonograph

Philco Photo-Electric Cell A Phonograph That Reproduces Sound On a Beam of Light

PHILCO MAKES REVOLUTIONARY ADVANCE

A phonograph that reproduces sound on a beam of light, claimed as the most revolutionary advance in phonograph design since Edison invented the talking machine 63 years ago, has first been disclosed by Philco engineers.

Operated by a current which pulsates 1,800,000 times a second, a tiny light in the head of the phonograph arm casts its beam on an even tinier mirror which swings on an axis attached above the jewel which replaces the ordinary phonograph needle. As the jewel vibrates in the record groove, it swings the mirror back and forth, flashing the reflected light beam on and off a small photo-electric cell also located on the phonograph arm. Thus—riding on the back of the jewel which floats in the grooves of the record—the tiny mirror wig-waggs its signals to the photo-electric cell which picks up the message and transforms it into sound.

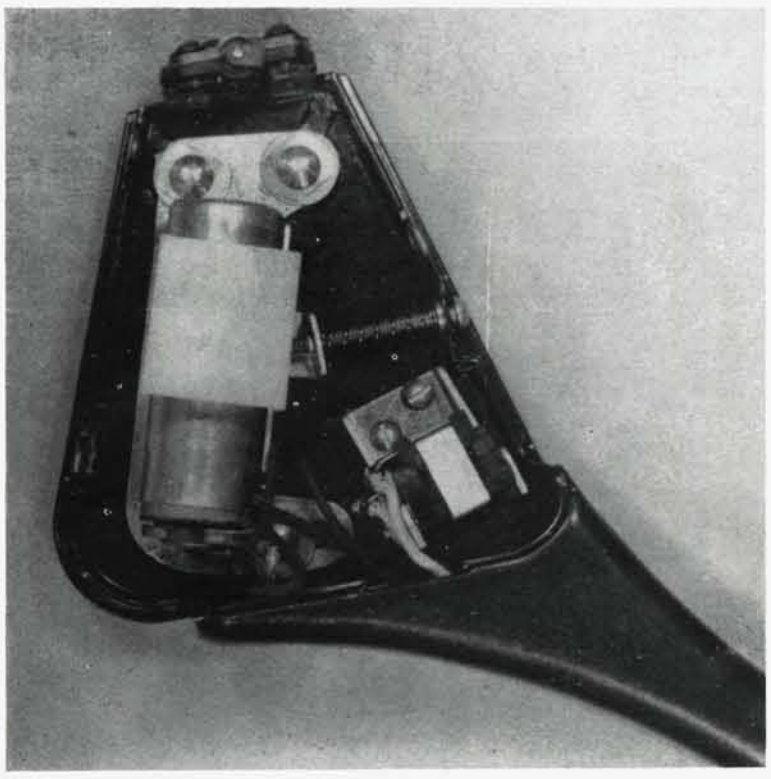
This new achievement, according to Philco engineers, marks the first time that the photo-electric cell has been used for the transmission of sound in an apparatus designed for the home. Known and made practical during the past ten years, the photo-electric cell has been the faithful opener of doors without the aid of human hands, the protector of life and property, and an aid to camera fans.

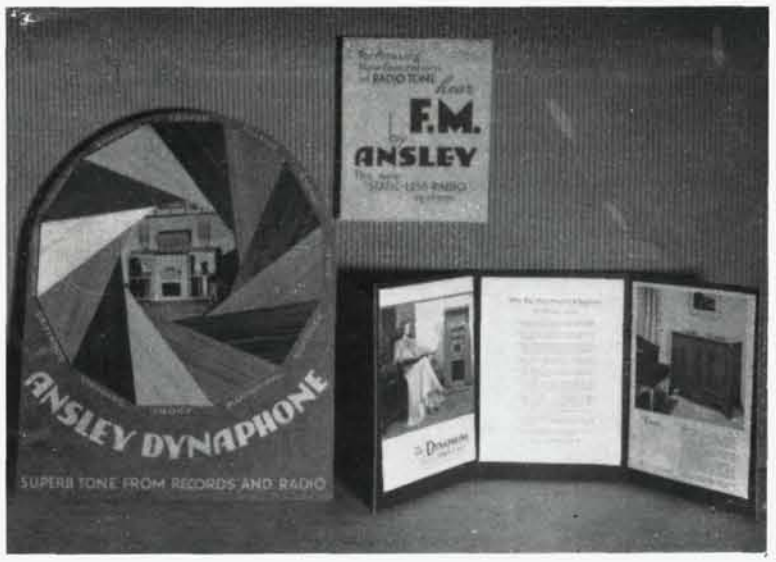
"The life of the floating jewel used in the photo-electric phonograph is at least 8 to 10 years," Mr. David Grimes, Philco chief engineer, explained. "And it increases the usable life of a record from 75 playings to 1,000 playings."

"The secret behind this new achievement, aside from the application of a photo-electric cell to sound reproduction, is the floating jewel which literally glides in the grooves of the record and creates sound because it is free and flexible. This is in direct contrast to the rigid steel needle of conventional phonographs that grinds through the grooves of a record and transfers its vibrations by laboriously twisting a stiff crystal. Because the jewel floats, rather than grinds, its life is increased many thousand times and the lives of the records which come in contact with it are increased many fold."

Another feature of the phonograph is the operation of the ingenious jewel and record guard which swings into action the instant more than one ounce of pressure is brought to bear either on the jewel, the record or both. Before the perfection of this jewel and guard, engineers stated, the mortality rate among needles and records was wastefully high.

The phonograph arm enlarged





ANSLEY HAS MANY HELPS FOR DEALERS

With the recent addition of an advertising and sales promotion department, under John J. Wood, the Ansley Radio Corporation of New York, is now rounding out their program to assist dealers in the sales of Dynaphones.