NEW MEGAPHONE SPREADS SOUND BROADCAST

A new megaphone which distributes sound over a greater area has just been developed by Prof. F. R. Watson of the University of Illinois, authority on acoustics. Already cheerleaders at the Universities of Illinois, Michigan, Wisconsin, and Minnesota have adopted the new instrument and indications are that its use will soon become widespread.

The magaphone is constructed of tin; it is only a foot and a half in length and strangest of all, has only a narrow rectangular opening. It is almost flat in appearance and is used in a horizontal position with the rectangular opening in a vertical plane.

Construction of the megaphone is based on the sound diffraction theory that sound passing through a narrow aperture spreads out. The ordinary megaphone differs from Prof. Watson's in that sound passing through it tends to travel only along the axes of themegaphone and not sideways. It permits only thepeople in front of the announcer to hear.

Sounds issued through the narrow opening of the new megaphone spread out in a wide area. The commonly used megaphone can be used only to direct sound audibly along one plane.

Prof. Watson conceived the idea of the invention more than 10 years ago when he began research in acoustics. He developed it this year upon the request of Illinois athletic officials who became concerned as to how cheering could be better conducted in the large Illinois Memorial Stadium and the Illinois Basketball Gymnasium.

Since the announcement of theinvention, Prof. Watson has received many requests concerning information about its construction. He is interested in having the instrument adopted and will willingly answer any questions.

OXYGEN GAS STERILIZES AND PRESERVES FRUIT JUICES

Oxygen, under ordinary conditions the very essence of the breath of life, is to be used as a means of killing germs and similar organisms and thus bring about the sterilization and preservation of fruit juices without injuring their delicate flavors, by a process which has been perfected recently by Dr. L. R. Cleveland of the Harvard University Medical School.

Dr. Cleveland states that by the use under pressure of the ordinary commercial oxygen gas, sold in cylinders for welding and other industrial purposes, he can kill all germs andother micro-organisms in periods of from twelve hours to four or five days, depending on thenature and quantity of juice under treatment and the amount of pressure used. In bulk, the juices can be enclosed in strong steel drums or barrels, the oxygen run into them up to the proper pressure, and the whole stored away indefinitely. In smaller quantitites, as in bottles or cans, the containers can be placed in a pressure tank, and then sealed or capped under sterile conditions in an atmosphere of pure oxygen.