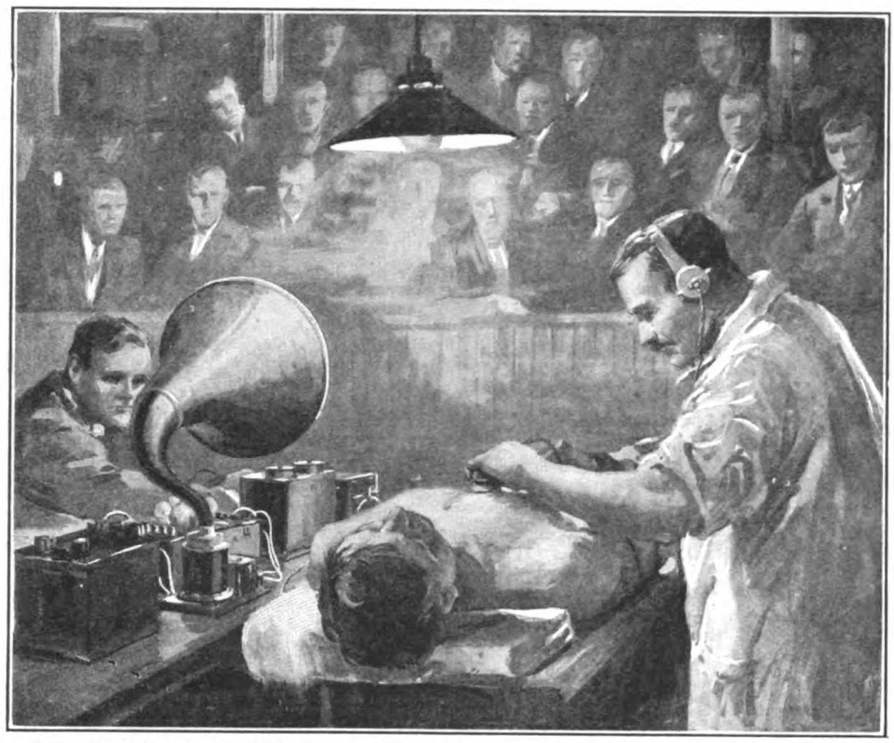
Heart and Lungs Now Voice Their Ills by Phonograph



Sounds of distress from heart and lungs are amplified and broadcasted, like a speaker's voice, so that they can be heard throughout a large room

FROM phonographic records of feeble heart and lung sounds, greatly amplified, doctors soon may be able to diagnose symptoms of diseases without even seeing their patients! Records may be submitted to medical authorities in distant cities or abroad for expert study and examination.

All this, it is said, will be made possible by the recent invention of a recording mechanism which intensifies the faint sounds of the heart and lungs until they can be heard plainly, even throughout a large lecture hall. Credit for the work goes to Dr. F. L. Hunt, of the Bureau of Standards, and Dr. M. J. Myres of the United States Army.

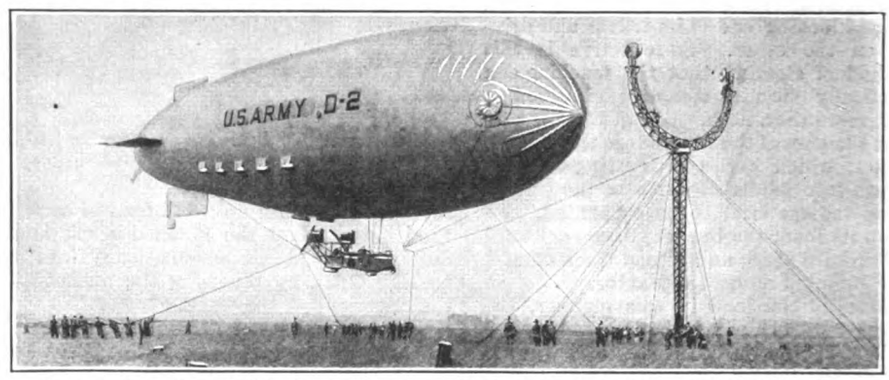
The invention is an amplifying system like that used in broadcasting a speaker's voice. An ordinary carbon telephone transmitter is employed as a stethoscope and the currents generated by heartbeats or lung sounds are amplified and transferred to a telegraphone using steel wire as a recording element.

This wire runs between two electromagnets actuated by current from the amplifiers. As it passes the poles, it is magnetized with varying intensity, depending on the amount of current produced by the sound of the heart or lungs. When the motion of the wire is reversed, the same apparatus produces the sounds in a telephone receiver.

Portable Steel Mast Is Hitching Post for Airships

Y-SHAPED airship mooring masts that will securely anchor dirigibles of any size in the strongest gales have been successfully tested at Langley Field, Va. The masts are 72 feet high, in four 18-foot latticed steelwork sections that can be transported readily in motor trucks.

Instead of holding a dirigible by its nose cap only, as in the case of masts previously designed, the new anchor grasps the airship between steel arms forming the upper section of the Y. This section turns freely on the mast, and keeps the airship pointing into the wind. Meanwhile the two-point suspension holds the hull steady in sudden gusts, which twist and strain the structure of a dirigible that is moored by the nose alone.

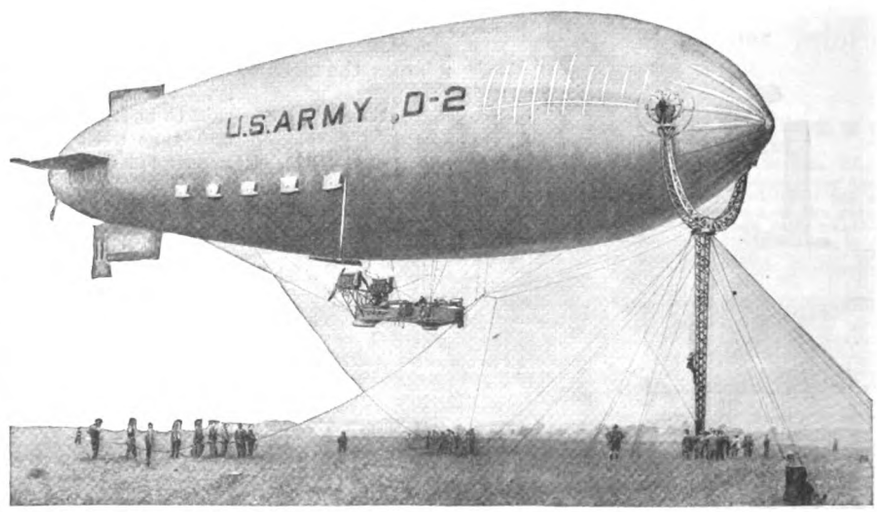


In mooring, the airship drops its rope, which is fastened to a cable from the tower. A winch then draws the dirigible between the tower arms

Mast Holds Any Size Ship

The steel arms end in cone-shaped, padded buffers that fit in sockets at the sides of the airship. Since these sockets may be located at almost any point of the airship's structure, the tower will moor ships of all sizes, from the *Roma*, with its 1,200,000 cubic foot capacity, to the smallest blimp.

In making a mooring, the airship hovers over the field at an elevation of about 100 feet, then drops its mooring rope, which is fastened to a cable leading from the tower. This cable passes down from the swivel at the base of the arms to a hand-operated winch. Winding the winch then draws the dirigible between the arms of the tower. Towers at permanent stations will eventually be equipped with pipes to carry helium, hydrogen fuel, air, and water, refueling in a few moments.



Brought to rest between steel arms, the ship is held securely by padded buffers. The arms pivot freely, keeping the ship pointing into the wind