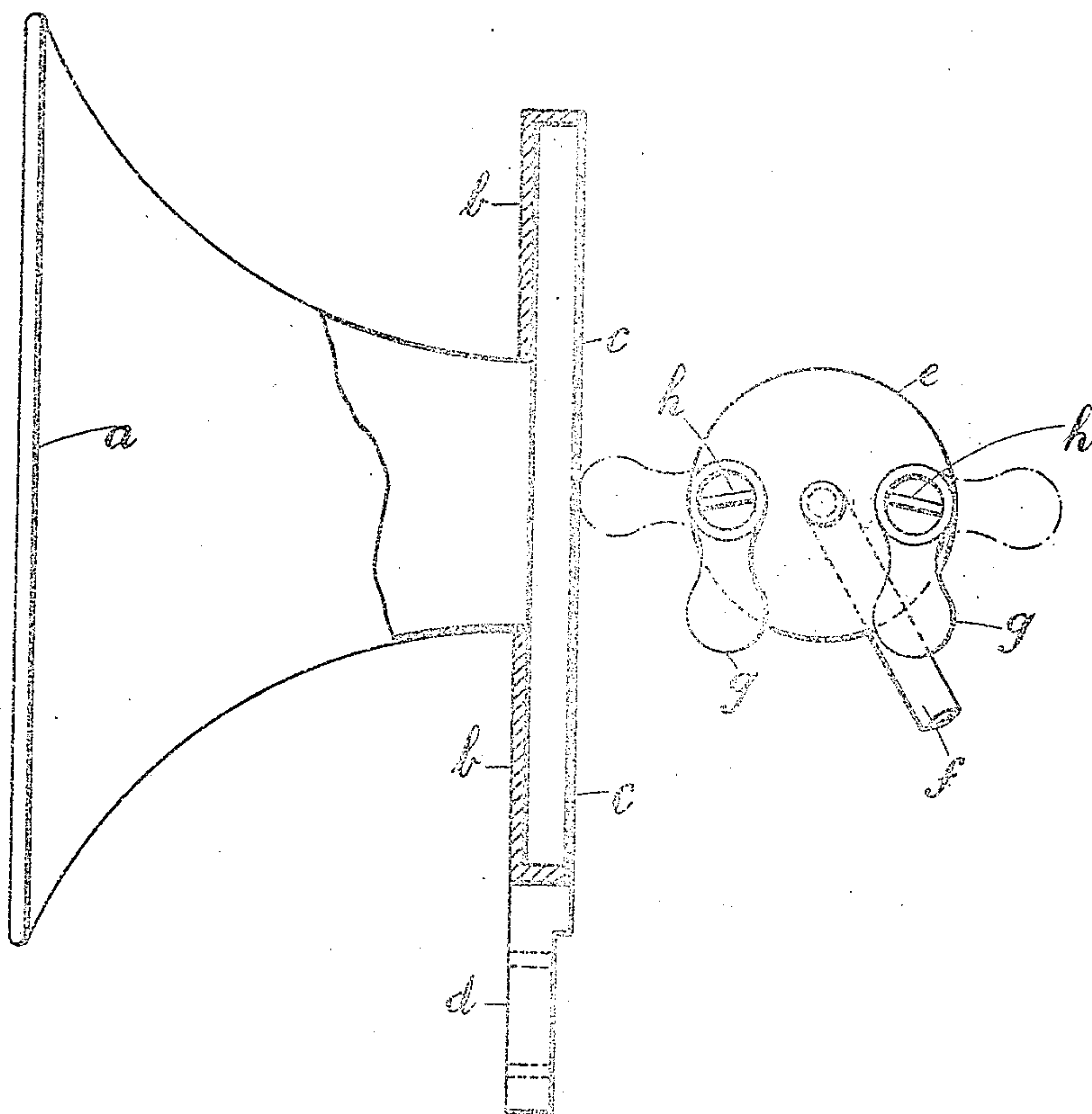


M. A. CODD.  
OPERATION OF SIGNAL HORNS.  
APPLICATION FILED APR. 27, 1910.

979,061.

Patented Dec. 20, 1910.



Witnesses:  
C. Heymann  
M. Schmid.

Inventor:  
Mortimer Arthur Codd  
by B. G. G. G.  
att.

# UNITED STATES PATENT OFFICE.

MORTIMER ARTHUR CODD, OF LONDON, ENGLAND.

## OPERATION OF SIGNAL-HORNS.

979,061.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed April 27, 1910. Serial No. 557,963.

*To all whom it may concern:*

Be it known that I, MORTIMER ARTHUR CODD, a subject of the King of Great Britain, residing at 1<sup>a</sup> Brownlow Mews, Guilford street, London, in the county of Middlesex, England, electrical engineer, have invented a new and useful Improvement in the Operation of Signal-Horns, of which the following is a specification.

10 This invention relates to signal horns such as are employed upon automobiles, motor launches and the like, for giving an audible warning of approach, and it has more particular reference to that type or class of  
15 horn having a sound box at its rear end containing a flexible diaphragm which is rapidly vibrated by mechanical means in order to produce a powerful roar.

20 The object of my invention is to provide a horn of the foregoing type capable of giving out a greater volume of sound than heretofore, and which will steadily maintain its efficiency.

25 The invention consists essentially in the combination of parts hereinafter fully described.

30 In the annexed drawing which illustrates the preferred embodiment of my invention, *a* designates a sound amplifier or resonating horn, at the rear of which is suitably fixed a sounding box or casing *b*, which is fitted with a diaphragm *c*. This box or casing *b* is furnished with an offset or depending bracket *d* by means of which it can  
35 be fixed in any convenient position upon the automobile, launch or the like framework.

40 *e* is a disk or pulley mounted adjacent the diaphragm *c*, and which may be driven by a small electric motor, flexible shaft *f*—as shown—from the motor engine, or any other suitable means. To this disk or pulley *e* I pivot one or more loose strikers or

flails *g*, which, when the disk or pulley *e* is revolved fly out centrifugally and strike the diaphragm thereby setting up vibrations and giving out audible sounds through the resonating horn *a*, and I wish to here point out that I am fully aware such mechanism has been employed heretofore in connection with signal bells for cycles and that I make no claim broadly thereto.

55 The strikers or flails *g* may be pivoted to the disk or pulley *e* in any convenient manner other than by means of stud pins *h* as shown, and the dot-and-dash lines indicate the position they occupy when the disk is rapidly revolved.

60 From the foregoing it will be seen that by my improvements I greatly improve the efficiency of signal horns of the kind above referred to, and I wish it understood that the specific form described and illustrated is only by way of example as the size and proportions of the various parts would obviously be varied to meet different conditions of use.

65 What I claim as my invention and desire to secure by Letters Patent, is:—

70 In signal horns for automobiles, motor launches and the like of the kind hereinbefore referred to, the combination of a sound amplifier or resonating horn having a diaphragm closed sounding box at its rear and a rapidly rotatable disk or pulley provided with one or more strikers or flails pivoted thereon for striking the said diaphragm, substantially as set forth and for the purpose specified.

80 In witness whereof I have hereunto set my hand in the presence of two witnesses.

MORTIMER ARTHUR CODD.

Witnesses:

ALFRED T. BRITTON,  
E. LAURENCE H. ELLIOTT.