No. 875,112. PATENTED DEC. 31, 1907.

A. SANDERS.

TIME LIMIT ANNUNCIATOR.

APPLICATION FILED DEC. 6, 1906.

Fig. 1.

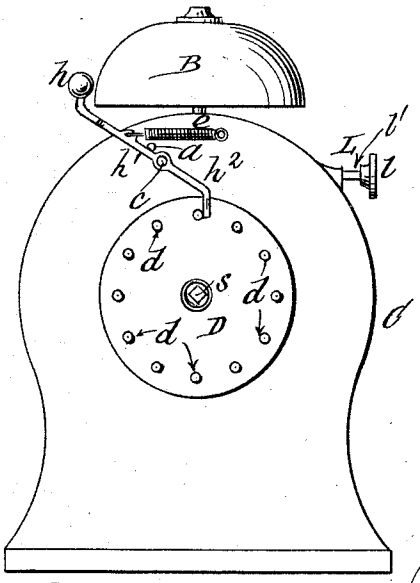


Fig. 4.

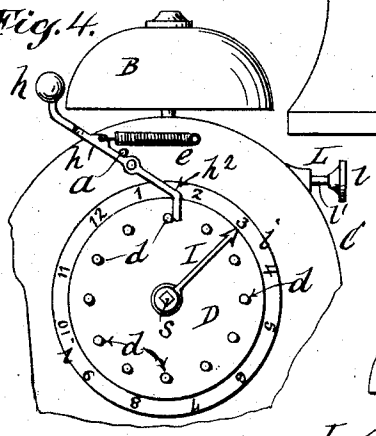


Fig. 3.

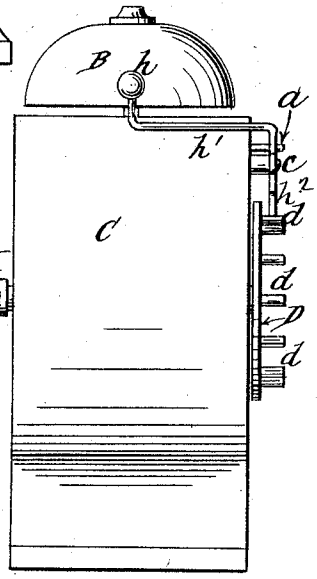
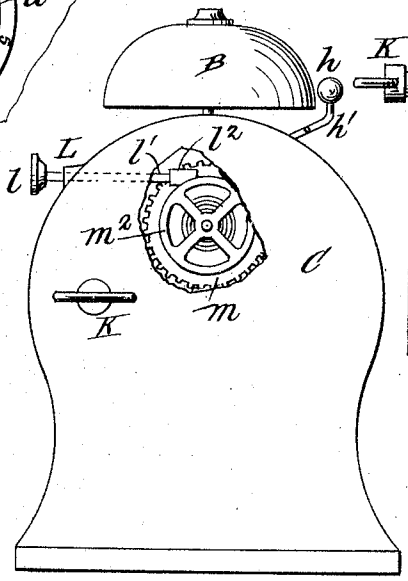


Fig. 2.



Witnesses:
D. W. Gardner.
I. Russell

Inventor:
Adolph Sanders
By his Attorney
Geo. Fw. Mitchell

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ADOLPH SANDERS, OF NEW YORK, N. Y.

TIME-LIMIT ANNUNCIATOR.

No. 875,112. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed December 6, 1906. Serial No. 346,544.

To all whom it may concern:

Be it known that I, ADOLPH SANDERS, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Time-Limit Annunciators, of which the following is a specification.

The object of my invention is to afford a simple automatic device for announcing audibly the time limit for telephone calls and for similar purposes, including the keeping of games played upon a time basis, as in progressive euchre and other similar card games, pool, and other games of skill,—such games or the sub-division of time being usually of relatively short duration,—usually lasting for a period of five minutes, more or less, according to the conditions of the game.

In keeping game time as above indicated by means of an ordinary clock, watch or time piece, it is difficult to do so accurately or satisfactorily, and there is opportunity for question and dispute, all of which I obviate by my invention which consists of the combination and arrangement of parts herein described and claimed specifically.

In the accompanying drawings, Figure 1, is an elevation of the front of my automatic time-limit annunciator; Fig. 2, a rear elevation; and Fig. 3, a side view of the same. Fig. 4, is an elevation of parts sufficient to illustrate a modification.

C represents the casing which is of any desired form and construction and in which is mounted suitable clock work movement *m*, for actuating the central spindle *s*, on the outer end of which is mounted the disk D or equivalent means of supporting a series of equi-distant tripping shoulders *d*, *d*, say for instance twelve in number if the period to be announced is five minutes and the said tripping shoulders are to rotate once an hour.

It is obvious that the relative distances between the tripping shoulders *d*, *d*, and the speed of rotation of their common support may be otherwise arranged and provided for with like result or to suit the requirements of special uses, and I do not limit myself in this respect, the essential feature being the provision of means whereby the bell hammer *h*, may be tripped at uniform, prescribed periods of time. The lever *h'*, of said bell is pivotally supported on the casing C, at *c*, and its lower or shorter arm h^2, is bent so as to project normally across the path of the tripping shoulders *d*, *d*, under the tension of the spring *e*, which tends constantly to hold the lever *h'*, against a stop *a*, in which position the hammer *h*, almost touches the rim of the bell B,—the resilience of the metal of which the lever *h'*, is composed being relied upon to effect the striking of the bell and the slight retraction of the hammer after the blow whenever the lever *h'*, is tripped by reason of the engagement of its lower arm h^2, with a tripping shoulder and its sudden release therefrom under the action of the spring *e*.

K represents a key for winding the clock-work movement and L a device for stopping the movement of the works when desired. This stopping device may be of any well known or desired form and construction, that shown in the drawings consisting simply of a push button *l*, on the outer end of a rod *l'*, on the inner end of which is mounted a brake shoe or contact l^2, which may be made to rest against the balance wheel m^2, of the clock work movement *m*, when it is desired to stop the movement temporarily or otherwise.

It is obvious that the same result may be accomplished by dogging or holding other parts of the movement, and hence I do not limit myself in this respect other than to a manually operated stopping device for use in conjunction with my automatic time-limit annunciator.

In the modification shown in Fig. 4, I represents a pointer mounted upon the same spindle of the clock work upon which the disk D is mounted and arranged to indicate on the stationary concentric index *i*, the number of times the bell has been struck, and hence the several intervals of time that have elapsed since the device was set and started. This in conjunction with the audible tally effected by the tripping shoulders affords absolute and indisputable evidence of the periods elapsing while annunciator is in action.

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

In a device of the character designated, the combination of the clock movement, a disk on the main spindle of the clock movement, a series of equi-distant tripping shoulders on said disk and concentric to the main spindle, a pointer on said spindle moving with the said tripping disk, a stationary index concentric to and adjoining the periph-

ery of said tripping disk, a hammer lever arranged to be actuated successively by said tripping shoulders, a retractile spring which tends to hold the hammer lever in its normal position, a bell arranged to receive the stroke of said hammer lever, and a hand device for stopping and releasing the clock movement, substantially in the manner and for the purpose described.

ADOLPH SANDERS.

Witnesses:
D. W. GARDNER,
GEO. WM. MIATT.