This invention relates to musical hour-striking clocks, and more particularly to an attachment to the striking mechanism of a "two-train" eight-day pendulum clock movement for producing musical tunes at the end of each hour.

One object of the invention is to provide a musical clock of the above nature in which different tunes may be played at each successive hour of the day, provision being made for readily changing the tunes whenever desired.

A further object is to provide an attachment for the strike train mechanism of a "two-train" clock having a count hook and a count wheel, consisting of an additional count pinion placed at the rear of the main strike pinion arbor, said count pinion being adapted to mesh with a driving wheel carrying a plurality of discs having hammer-operating projections on their peripheries for successively engaging other projections on a like number of gong-striking hammer hubs.

A further object is to provide a device of the above nature which will be simple in construction, inexpensive to manufacture, easy to install and manipulate, compact, and very efficient and durable in use.

With these and other objects in view there has been illustrated on the accompanying drawings one form in which the invention may be conveniently embodied in practice.

Fig. 1 represents a fragmentary rear view of an eight-day pendulum clock upon which the present invention has been installed.

Fig. 2 is a side view of the same.

Fig. 3 is a fragmentary view of one of the gong-striking hammers.

Fig. 4 is a fragmentary view of one of the hammer operating discs.

Fig. 5 is a fragmentary view showing a portion of the count wheel.

Referring now to the drawings in which like reference numerals denote corresponding parts throughout the several views, the numeral 10 indicates the clock case having the usual crystal 11 and circular sash 12.

Supported on the rear of the case 10 are the front and back frames 15 and 16, respectively, of the clock movement. The plates 15 and 16 are held together by a plurality of pillars and carry the time train of gears generally indicated by the numeral 17, said time train being driven by a main spring 18 and controlled as to speed by the usual pendulum and escapement mechanism, not shown.

Also mounted between the plates 15 and 16 is a strike-train operating mechanism generally indicated by the numeral 19, said strike train being driven by a main spring 20 and controlled as to speed by an air fly 21.

In order to normally prevent rotation of the strike train, provision is made of a count wheel 22 having a series of teeth 23 and notches 24 on its periphery. The number of teeth 23 between successive notches 24 increases around the periphery of the count wheel 22 in an arithmetic progression, whereby the strike train will be permitted to run a successively greater time at each succeeding hour. If desired, auxiliary half-hour notches, not shown, may be provided between the notches 24 to permit half-hours to be struck, either by a single hammer or by a plurality of hammers in case a musical chord is desired.

The count wheel 22 controls a count hook 25, pivoted at 26, and adapted to be lifted by suitable mechanism connected with the time train 17 at the end of each successive hour. The count wheel 22 is mounted upon a hub 27 attached to the front frame 15. The hub 27 also carries a main gear wheel 28 meshing with a main strike pinion 29 rigidly mounted on a main strike pinion arbor 30.

The main strike pinion arbor 30 is extended rearwardly of the black frame 16 and carries a count pinion 31 which meshes with a disc driving wheel 32 mounted upon a stud shaft 33. The stud shaft 33 carries thereon a plurality of parallel discs 34, 35, 36, 37, and 38, said discs being adapted to rotate in unison and each having a series of pins 39 arranged on its periphery in such a manner that as the disc driving wheel 32 is rotated when the count hook is released at each successive hour, the pins 39 on the parallel discs 34, 35, 36, 37, and 38 will come into engagement successively with upstand...
ing projections 40 on the hubs 41 of a plurality of gong-striking hammers 42 mounted on an arbor 42a attached to a movement frame pillar 42b. The projections 40 of the hammer hubs are arranged in alignment with the parallel discs 34 to 38.

Each of the hammers 42 is provided at one end with a head 43 having a felt plug 44 at its lower end for striking gong rods 45 located there beneath and mounted in a suitable bearing 46 connected to the clock case 10. The hammers 42 are provided on their ends opposite from the heads 43 with silencing arms 47 adapted to be engaged by a stop and silencing lever 48, by means of which the hammer heads 43 may be lifted from the gongs 45 and the projections 40 of the hammers 42 may be simultaneously lowered out of alignment with the pins 39 on the parallel discs 34 to 38.

In order to permit the hammer-operating discs to be readily detached for changing to a new set of tunes, the end of the stud shaft 33 has an annular groove 49 adapted to be engaged by a removable U-shaped friction spring 50, by means of which the discs 34 to 38 are normally held in place, but may be easily slipped off from the stud 33 when the spring 49 is removed. This overcomes the monotony of employing a single set of discs and tunes indefinitely, and the change to a new set of tunes may be made by the user of the clock without requiring the services of an expert.

For the purpose of facilitating the accurate adjustment of the disc sets to the hour, the end of the count pinion arbor 30 may be squared and the count pinion 31 may be slidably mounted thereon, a suitably manually-operated forked lever having an indicating pointer at its lower end, not shown, being employed to push the count pinion 31 forwardly out of mesh with the disc driving wheel 32. This construction obviates the necessity of "striking around" the clock when turned backwardly as the discs can be instantly adjusted to the proper hour by unmeshing the count pinion 31 and the driving wheel 32.

Moreover, at the rear of the parallel discs a dial may be placed for indicating the hours and half-hours. A friction spring may also be employed to normally retain the count pinion 51 at its rearward position in alignment with the disc driving wheel 52.