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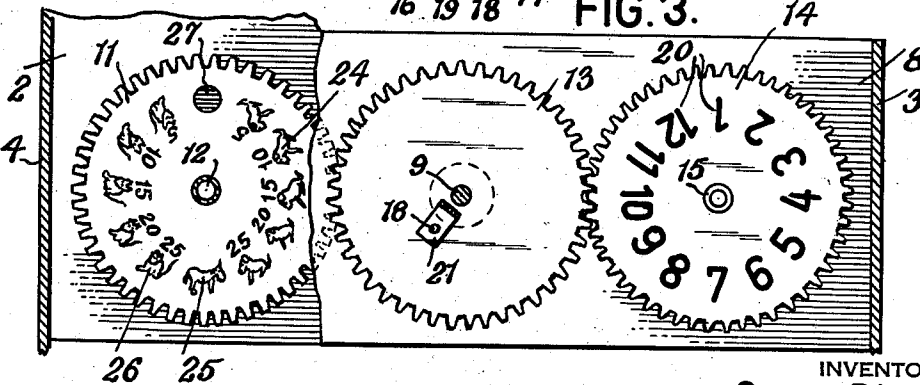
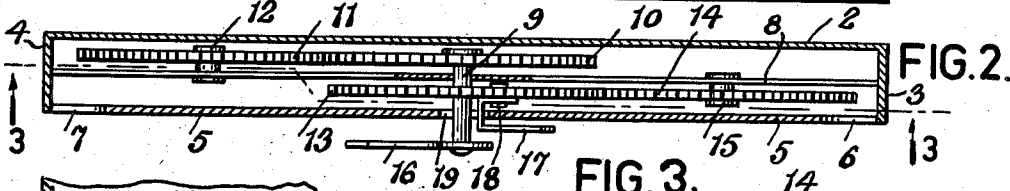
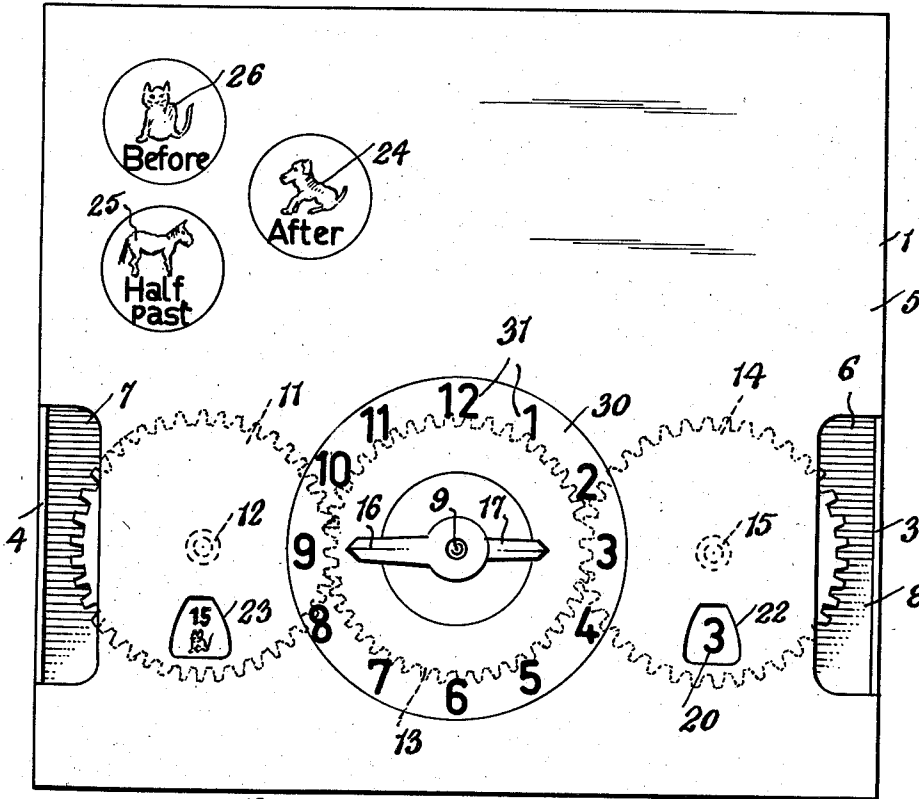
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2,837,838

DEVICE FOR TEACHING THE TELLING OF TIME

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FIG. 1.



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DEVICE FOR TEACHING THE TELLING OF TIME

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2 Claims. (Cl. 35—39)

This invention relates to educational devices, and more particularly to a device by which the reading of a time-piece, or the telling of time, can be readily taught to children or to others in a novel and simplified manner.

It is an object of the invention to provide a device of this character of inexpensive construction and easy operation, and by which the positions of the hands on the dial of a clock or other timepiece will be translated into recognizable numerals and pictorial or other elements known to a child, and identified with a period of time so designated, so that after relatively short use of the device, time-telling will be successfully taught.

More particularly, the invention contemplates the provision of a clock dial having independently, manually-adjustable hands, which hands are coupled by gearing or other drive means to disks which respectively bear hour numbers and minute numbers, the latter being, if desired, accompanied by pictorial or other symbols to designate "before," "after," half hour and hour points. Thus, by adjusting the hands to any desired points on the dial, the time designated by the position of the hands will be indicated in windows adjacent to the disks and the time indicated by said disks will become associated with the positions of the hands on the dial, so that various positions of the hands will soon become meaningful to a child.

With these and other objects to be hereinafter set forth in view, I have devised the arrangement of parts to be set forth and more particularly pointed out in the claims appended hereto.

In the accompanying drawing, wherein an illustrative embodiment of the invention is disclosed.

Fig. 1 is a front elevational view of a time-telling device constructed in accordance with the invention;

Fig. 2 is a horizontal sectional view through the same, and

Fig. 3 is a sectional view taken substantially on the line 3—3 of Fig. 2, looking in the direction of the arrows.

Referring to the drawing, 1 indicates generally the casing or enclosure for the device. The same may be made of cardboard or other suitable inexpensive sheet material and may be made in various shapes and ornamentally lithographed or embellished with pictures and designs. The casing as shown includes a front panel 5, side walls 3 and 4, and a back panel or rear wall 2. Contained within the casing 1 and spaced from the front and rear walls thereof, is a partition member 8 through which a centrally-positioned spindle 9 rotatively passes, said spindle being provided at its forward end with a minute-designating hand 16 located on the outside of the panel. Fixed at the opposite end of the spindle 9 is a gear 10 which is in mesh with a similarly-sized gear 11, said gear 11 being freely rotative on a pivot point 12 mounted in the partition 8. This arrangement is such that by manually rotating the gear 11, the gear 10 will also be rotated, and hence the minute hand 16 secured on spindle 9, will be caused to travel around the face of a clock dial 30 printed or otherwise produced on the

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outer face of the front panel 5. The dial 30 bears the conventional hour-designating numerals 31. To manually rotate the gear 11 the fingers may be inserted through an opening 7 provided in the panel 5 near one edge thereof and in which opening a portion of the gear 11 is exposed, as clearly seen at the left in Fig. 1.

Loosely mounted on the spindle 9, and thus capable of free rotation thereon, is a gear 13, similar in size to that shown at 10, and said gear 13 carries an hour-designating hand 17, provided with a foot 21 (Fig. 3) secured to the face of the gear 13 by a rivet 18 or other equivalent fastening element. This arrangement is such that by rotative movement of the gear 13, the hour hand 17 will be moved around the face of the dial 30 in the conventional manner of the hour hand of the conventional clock. The front panel 5 of the casing 1 is provided with a central opening 19 of a size sufficient to permit the passage of the spindle 9 through its as well as permit the hand 17 to be rotatively moved as above stated.

Rotatively mounted on a pivot pin 15 in the partition 8, is a gear 14, the same being similar in size to the gear 13 and being in mesh therewith. As will be seen at the right in Fig. 1, a portion of the gear 14 is accessible through an opening 6 provided in panel 5, and by which the gear 14 may be manually engaged by the fingers to turn it and thereby, through gear 13, move the hour hand 17 to any desired position over the face of dial 30.

The gear 14 constitutes an hour-indicating disk and hence its exposed face bears hour-designating numerals 20, similar to those borne by the dial 30. The gears 13 and 14 are so meshed that when the hour hand designates a specific hour on the dial 30, such as for example "3" as in Fig. 1, a similar numeral "3" on dial 14 will be exposed through a window opening 22 in the front panel 5. Thus, by turning the gear 14 so that a selected numeral will appear in the window 22, the hour hand 17 will at that time designate one of the numerals 31 similar to those on the clock dial 30.

The gear shown at 11 constitutes a minute-indicating disk, and this bears on one of its faces, a plurality of numerals as well as symbols. For example, the numerals on the gear 11 which bear the pictorial representation of a cat as indicated at 26, indicates minutes before the hour. The numerals which are accompanied by the picture of a dog, as indicated at 24, indicate minutes after the hour. Half-hour points can be designated by the picture of a horse, as indicated at 25, and hour points can be blank or might be indicated by a dot or other symbol such as shown at 27 in Fig. 3. It will be understood that these suggested symbols are merely illustrative, since colors, geometric figures, human figures or many other designating symbols can be readily used.

The coupling between gears 11 and 10 is such that when any selected symbol 24, 25, 26 or 27 is registered with a window 23 provided in the panel 5 as well as in the partition 8, so that such symbol and its accompanying numeral is visible from outside the casing 1, the minute hand will point to the similar numeral on the dial 30. Reversely, when the minute hand is turned to any specific point on dial 30, the point so designated will be indicated in window 23 by a numeral and symbol. This will be apparent from Fig. 1, wherein the numeral 15, accompanied by the picture of a cat, and thus designating "15 minutes before," is located in window 23, while the hand 16 points to the numeral 9 on the dial, thus indicating fifteen minutes before three.

From the foregoing, the operation of the device will be readily apparent. By turning the gears 11 and 14 by insertion of the fingers through the openings 6 and 7, the minute hand 16 and the hour hand 17 may be adjusted to designate any selected time on the clock dial 30.

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Simultaneously, with such adjustment, the gears 11 and 14 will respectively locate the required numerals and symbols in the windows 22 and 23 to thereby indicate by such numerals and symbols the time designated by the hands of the clock. Thus a child, by associating the positions of the hands with the information provided by the disks or gears 11 and 14, and which he can readily understand, will soon learn time-telling.

The construction of the device is such that it can be easily constructed of inexpensive materials, such as cardboard, plastic or other products. The device is capable of variations without departing from the spirit of the invention. For example, the gears or disks 11 and 14 might be rotatively turned by knobs rather than by finger engagement with their peripheries; the symbols suggested might be others than those disclosed, and various other changes are possible as are contemplated by the scope of the claims appended hereto.

What I claim is:

1. An educational device including a casing, said casing including a front panel, a clock dial on the outer face of said panel, a pair of independently movable hands at the front of said dial and movable thereover to designate time, a gear carried by one of the hands within the casing, an indicating gear in the casing in mesh with said gear, the indicating gear having a face bearing numerals, a gear carried by the second hand, an indicating gear in mesh therewith and bearing numerals and symbols, windows in the panel through which the numerals and symbols borne by the indicating gears can be successively presented to view, the coupling between the hands and gears being such that the indicating dials will present

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through the windows a statement of the time as it is indicated by the position of the hands on the dial, the casing having apertures through which the indicating gears are exposed for manual rotation.

2. An educational device including a casing, said casing being provided with a front panel, a clock dial provided on said panel, a pair of independently movable hands movable adjacent to the dial to designate time, a gear carried by one of the hands within the casing, an indicating gear in mesh with said gear, the indicating gear having a face bearing numerals and having a peripheral portion exposed at one edge of the front panel to permit of manual turning movement of said indicating gear, a disk connected to the second hand, said disk being rotatable to move the said hand around the dial, said disk bearing numerals and "before" and "after" indications, windows in the front panel through which the numerals and "before" and "after" indications can be successively presented to view, the casing having apertures in the front panel through which parts of the disk and gear are exposed for manual rotation.

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