

## An Apgar Timer

*To the Editor:* The widespread use of the Apgar scoring system has resulted in improved evaluation of the newborn infant. Three factors are necessary—accurate assessment of each sign evaluated, an unbiased scorer, and scoring at the exact time previously decided on (one-minute, five-minute, or ten-minute Apgar score). Each sign should be evaluated separately and recorded, then the sum total obtained, rather than the scorer being asked to give the total score. This can be accomplished by printing the Apgar chart, with each of the five signs, on the Obstetrical Anesthesia record, with space for points for each sign. The best unbiased scorer is an experienced obstetrical nurse. Unless the exact time since birth is known, Apgar scores before or after the conventional one- or five-minute scores will be obtained. The time since birth can be obtained from watching a clock, but in the busy delivery room, some sort of audible signal is preferable. This can be obtained with a standard laboratory timer, but this requires setting before each scoring session, and is easily neglected. We have a better solution, a timer activated by the delivery room nurse at the complete birth of the infant, which sounds an audible signal one and five minutes later. A schematic diagram and parts list are illustrated. This device can be produced by anyone with some knowledge of mechanics and electronics, and costs less than \$25.

RICHARD B. CLARK, M.D.

*Assistant Professor, Anesthesiology,  
and Obstetrical Anesthesiologist  
Arkansas Maternity and Infant Care Project*

BYRON L. HAWKS, M.D., F.A.C.O.G.  
*Associate Professor, Obstetrics and Gynecology,  
and Project Director, Arkansas Maternity  
and Infant Care Project*

*University of Arkansas Medical Center  
Little Rock, Arkansas*

LOUIS F. MUENCH, B.S.E.E.

### PARTS LIST

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- |   |   |
|---|---|
| 1 | one-revolution-per-5-minute timer motor               |
| 1 | cam with 6° notch                                     |
| 3 | micro switches<br>(2 cam switches and 1 start switch) |
| 1 | 115-volt AC double-contact double-throw relay         |
| 1 | 115-volt AC neon pilot light                          |
| 1 | cabinet   |
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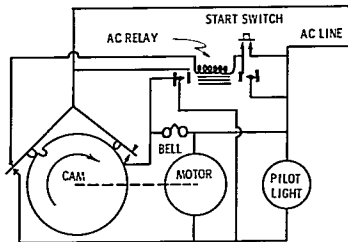


FIG. 1. Apgar timer, shown in ready (non-operating) position. Momentary closing of start switch causes relay to close. One set of contacts starts motor and other set locks in relay through normal contact of cam switch CS1. After 55 seconds CS2 makes contact and sounds bell for five seconds. The motor continues running, and four minutes later CS1 is operated. The relay is released but the bell and the motor are energized thru contact of CS1. After five seconds CS1 restores and ends the cycle.

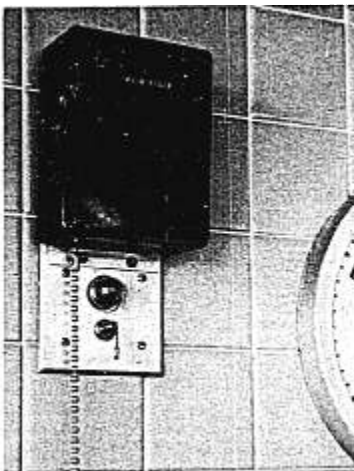


FIG. 2. Apgar timer mounted above five-foot level. Delivery room nurse activates timer at complete birth of infant by pulling chain. Cycle is started and cannot be interrupted until it is finished five minutes later. Buzzer sounds at 55 seconds and five minutes after activation, for five seconds. Plate on which timer is mounted conceals AC power source.