

No. 744,355.

PATENTED NOV. 17, 1903.

D. S. KANSTOROOM.
CLOCK DIAL.

APPLICATION FILED JULY 29, 1902.

NO MODEL.

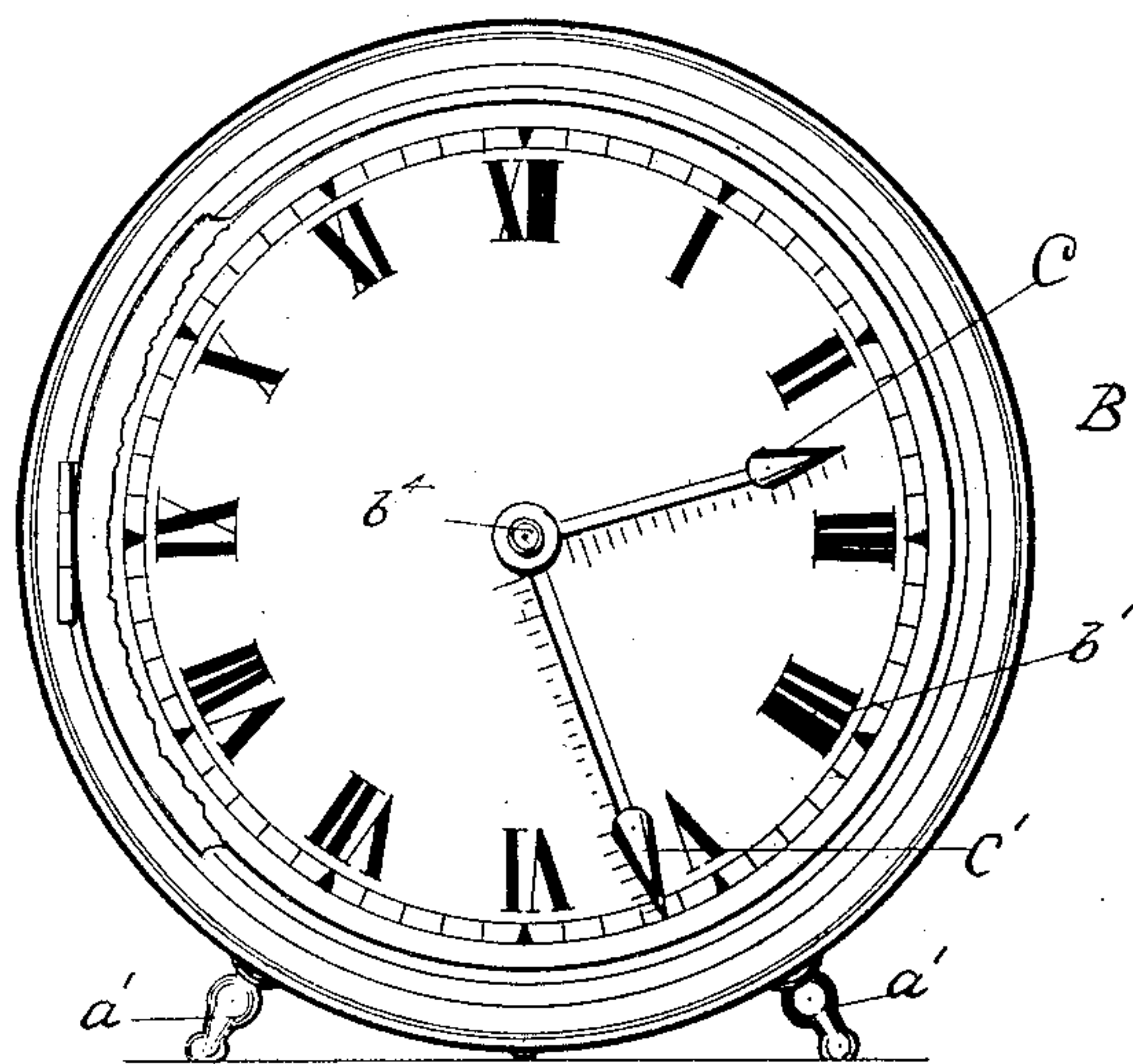


Fig. 1.

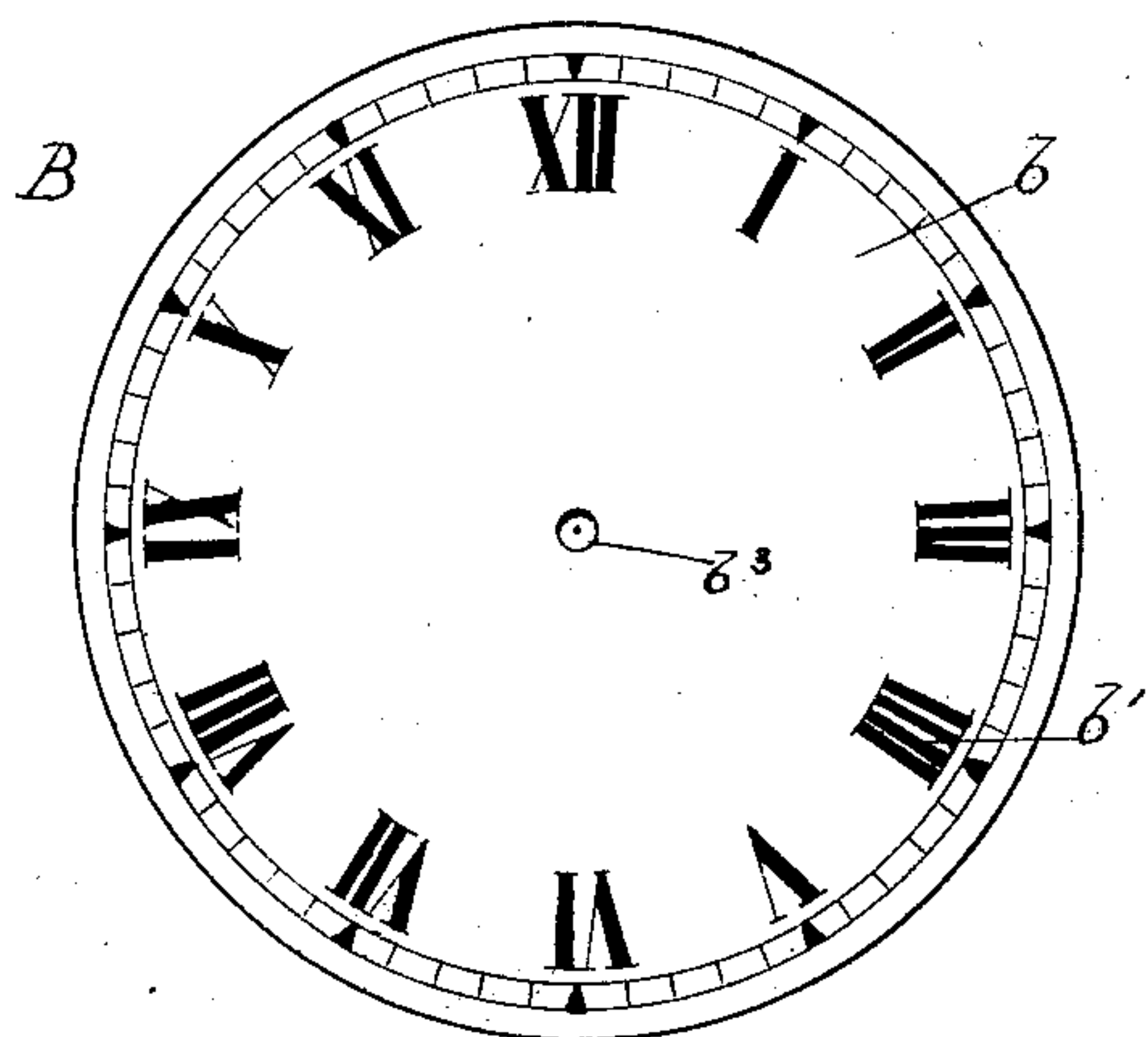


Fig. 2.

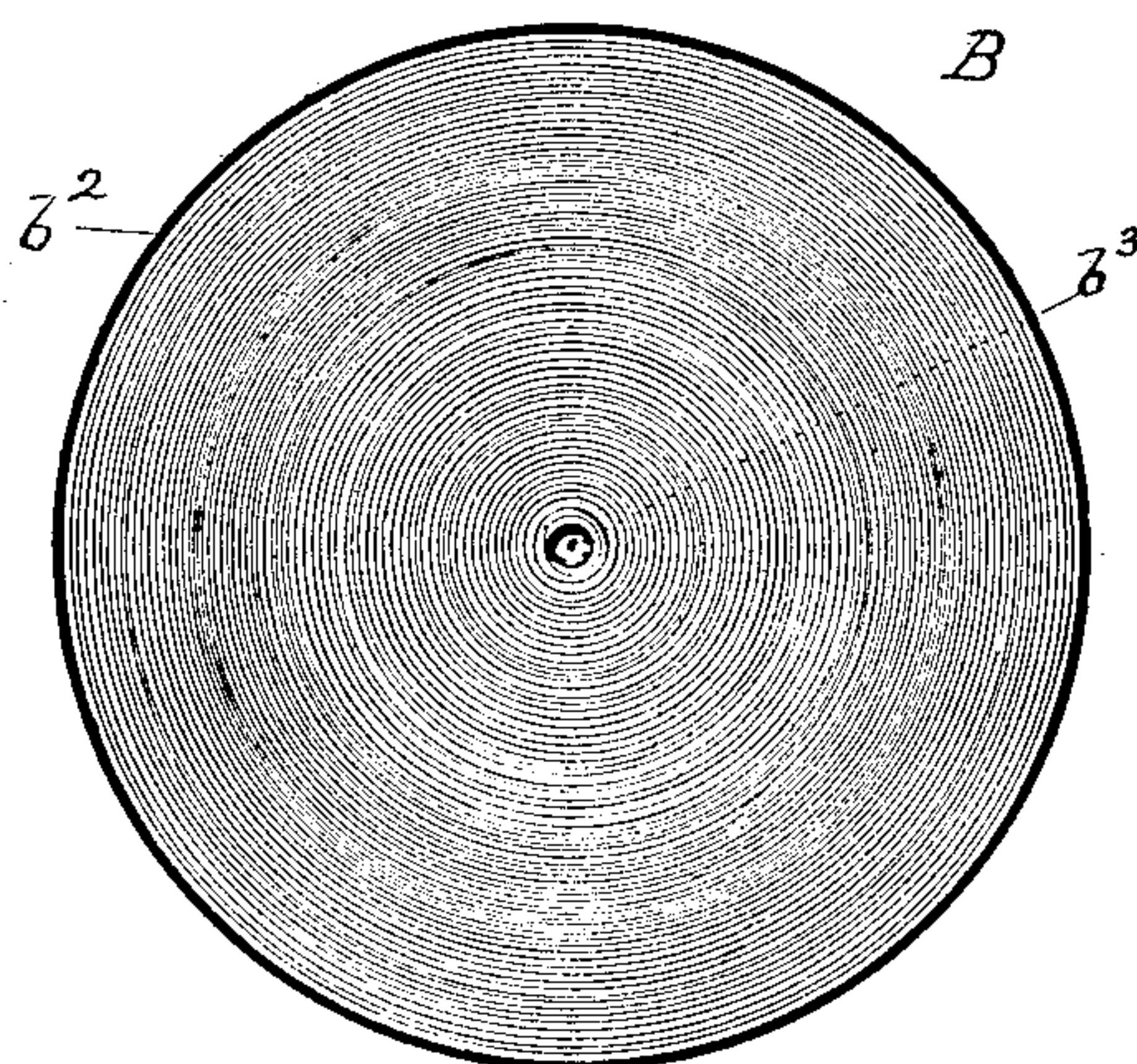


Fig. 3.

WITNESSES:

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DAVID S. KANSTOROOM, OF KANSAS CITY, MISSOURI.

CLOCK-DIAL.

SPECIFICATION forming part of Letters Patent No. 744,355, dated November 17, 1903.

Application filed July 29, 1902. Serial No. 117,445. (No model.)

To all whom it may concern:

Be it known that I, DAVID S. KANSTOROOM, a citizen of the United States of America, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Dials for Clocks and Watches; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

The object of my invention is a dial for a timepiece the face of which constitutes a mirror for collecting the beams of light, so as to distinguish thereby in the dark the position of the minute and hour hands.

The invention consists in the novel device hereinafter more fully described, and specifically pointed out in the claim.

In the drawings, Figure 1 represents a portable open-face timepiece or clock, showing the invention applied thereto. Fig. 2 is a detail face view of the novel dial. Fig. 3 is a view of the back of the dial.

Similar letters of reference indicate corresponding parts in all the figures of the drawings.

Referring to the drawings, A represents an open-face clock, the case *a* of which is circular in form and supported by the legs *a'* *a'*.

B represents the dial, which is preferably made from malleable glass and comprises a flat disk, upon the face *b* of which are the numerals *b'*, representing the hours of the day, from "1" to "12," inclusive, arranged in a circular line near the edge of the disk and spaced apart in the usual manner, the radial lines indicating the minute-spaces and the numerals being engraved in the glass or affixed in any well-known manner.

*b*² represents the back of the dial, which is coated with quicksilver or mercury in the well-known manner, the dial constituting a mirror to be employed as hereinafter described.

C C' represent the hour and minute hands, respectively, which are connected with the

ordinary sleeve and center post of the time mechanism, (not illustrated,) an opening *b*³ being made at the center of the dial concentric with the sleeve and through which the sleeve is passed, the hour and minute hands being close in position to the face of the mirror-dial.

In order to detect the position of the hour and minute hands in the dark, and especially in position in the times at night when no artificial light can be had, the clock or watch is held in the hand and its position changed, so as to enable the mirror-dial to collect the ambient rays of light which are present in the air and reflect them. The position of the clock or watch is so arranged that the angle of the rays reflected will pass through the hour and minute hands and be observed by the eye, the rays illuminating the hands, so that their position on the face of the dial may be seen and the hour of the night ascertained.

The advantage of the mirror-dial is readily seen of great utility for observing the time at night, which is requisite, especially in the sick-room and the military service when the night-watches are to be changed, also in mining operations, where the light employed is feeble, and numerous other instances.

It is obvious that a substitute material for glass or an equivalent for the mirror may be employed. The mirror-dial is, with the aid of natural or artificial light, made a useful adjunct of the clock or watch, the higher degree of utility, however, being for time-indicators for night watchmen and like uses.

I am aware that clock-dials have been made from glass. I am also aware that a mirror has been employed beneath a slot in an electrical instrument to allow the reflected image of the needle to be brought directly under the position of the needle, so as to obviate any error due to parallax, as in the patent to Weston, No. 427,022, April 29, 1890; but I am not aware that a mirror-dial, as shown in my invention, with the characters indicating the hours of the day thereon in a watch, so that the position of the hour and minute hands in relation to the characters may be determined

from the beams of light, has been discovered prior to my invention or discovery thereof.

Having fully described my invention, what I now claim as new, and desire to secure by
5 Letters Patent, is—

The combination with a watch and the hour and minute hands, of a glass dial-plate beneath the hour and minute hands having the characters indicating the hours of the day

upon its face, and its back overlaid with mer- 10
cury.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID S. KANSTOROOM.

Witnesses:

THEODORE C. SPARKS,
GEORGE W. DAY.