

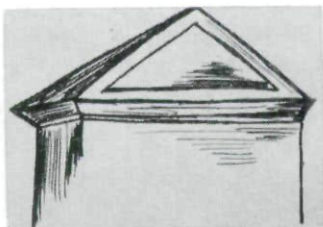
GRANDFATHER CLOCKS

By Barbara Bower

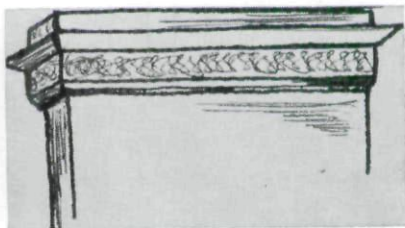
The author and artist of the following article and sketches, Miss Barbara Bower, joined the staff of the Iowa State Department of History and Archives this past March. A graduate of the University of Iowa, she is serving as Public Relations officer for this Department.

The manufacture of chamber clocks for domestic use commenced in England about 1600. The pendulum, introduced in 1658, brought with it the timely favorite, the longcase or grandfather clock, which was popular through the late 1800s. United States manufacture of the longcase clocks began in the late 1700s with construction stemming mainly from English designs. The New England states, especially Connecticut, led in the number of clock makers.

During the first period of longcase architecture, the clocks were topped with the classical portico as shown in sketch A; however, this was replaced, before 1700, by the flat top, sketch B, which was favored well into the late 1700s. By 1725, square dials were joined by break-arch dials, and later, break-arch hoods, shown in sketch C. Between 1750 and 1800, an unusual shape of top appeared which, because of its faintly Eastern appearance, was called the "pagoda top," shown in sketch D. The broken pediment, sketch E, appeared near the end of the 1700s.



Classical Portico
Sketch A



Flat Top
Sketch B



Break-arch Hood
Sketch C



Pogoda Top
Sketch D



Broken Pediment
Sketch E

Longcases gradually grew in both height and width. The clocks, originally six feet tall, grew to six and a half feet and, after 1700, to a height of seven feet or more. During the period of 1675-1700, a few grandmother clocks, only about five and a half feet tall, were made. But, these are so rare that they are well out of the average collection.

The hood of the clock was almost invariably supported by pillars, the plain one-piece capital becoming a universal favorite. The dials and hands of the clocks followed a sequence which helped in dating them. During the first architectural period of the case, 1650-1700, the dial was made of brass and engraved with Roman numerals indicating the hours; but, almost at once, it became common practice to employ a separate chapter ring, or hour circle, which was attached to the dial proper. It was usual on clocks to engrave the numeral IV as IIII on the chapter ring in order to balance visually with the VIII on the other side of the ring. The tradition of the brass dial with separate chapter ring continued, for the best clocks, throughout the longcase period. The chapter ring was silvered—the numerals were black to contract with the brass background.

About 1870, another one-piece dial appeared; it was made of iron and painted. Introduced for cheapness because of the popularity of the longcase clocks, it was not engraved.

The faces on the first longcase clocks were only about eight inches square; some had engraved bands around the edges. The faces were enlarged to about ten inches square after the introduction of the long pendulum in 1675, and to eleven and twelve inches after 1700. The break-arch face was introduced about 1725 and gradually became a popular shape

for the better clocks. The space in the arch was used for decoration and engraving the maker's name; for a motto such as *Tempus Fugit*; a special indication, as the equation of time; or, after the 1750s, commonly for a moon dial, tidal dial, or an animated mechanism as a tossing ship at sea.

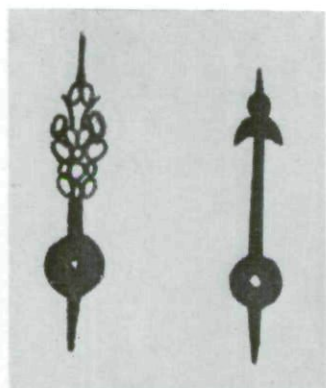
The accuracy of the pendulum brought with it the minute hand and a ring of minute divisions placed on the outside of the chapter ring. The minute numerals were engraved outside the ring of scale division, and remained fairly small until the 1750s, after which they were enlarged, on some clocks to the size of the hour numerals.

The long pendulum also introduced the second hand which became almost universal on longcase clocks. Usually the seconds' dial was placed above the center of the main dial.

The corner decorations of the clock face, known as spandrels, followed a fairly consistent sequence of development. The earliest design was the cherub's face with wings on each side. About 1700, the simple cherub's face became enmeshed in elaborate foliage and scrolling and the wings almost disappeared. Sometimes, in the 1700s, a flower was employed as the main symbol of the spandrel, but the faces persisted. One pleasant variation was four different, but associated, spandrels with figures representing the four seasons, a symbolism also illustrated in the corners of the later painted faces.

The earliest hands on longcase clocks, which showed only the hours, were short and stubby with long tails, as illustrated in sketch F. However, when the minute hand was introduced, makers began to pay more attention to the hands. First the hour hand lost its tail, which made setting the clock much easier. Shortly before 1700, designs became almost excessively elaborate and these stayed popular for about 75 years. One favored design was the cross-over loop which remained in fashion for almost as long as the longcase clocks. See sketch G. After the mid-1700s, when the one-piece dial, silvered all over, was introduced by many makers, a new style of hands also appeared. The hour and minute hands were made to match, except the minute hand was narrower and elongated, as shown in sketch H. After the 1740s, a longcase clock was occasionally provided with a center second hand. A long hand set on the same center as the hour and minute hands,

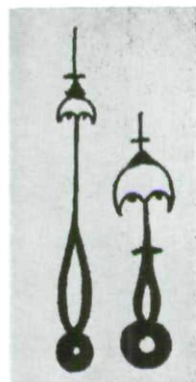
it was provided with a substantial tail so that the center of the hand was the center of gravity. The second hand was of very simple and straight design.



Earliest Hands
Sketch F



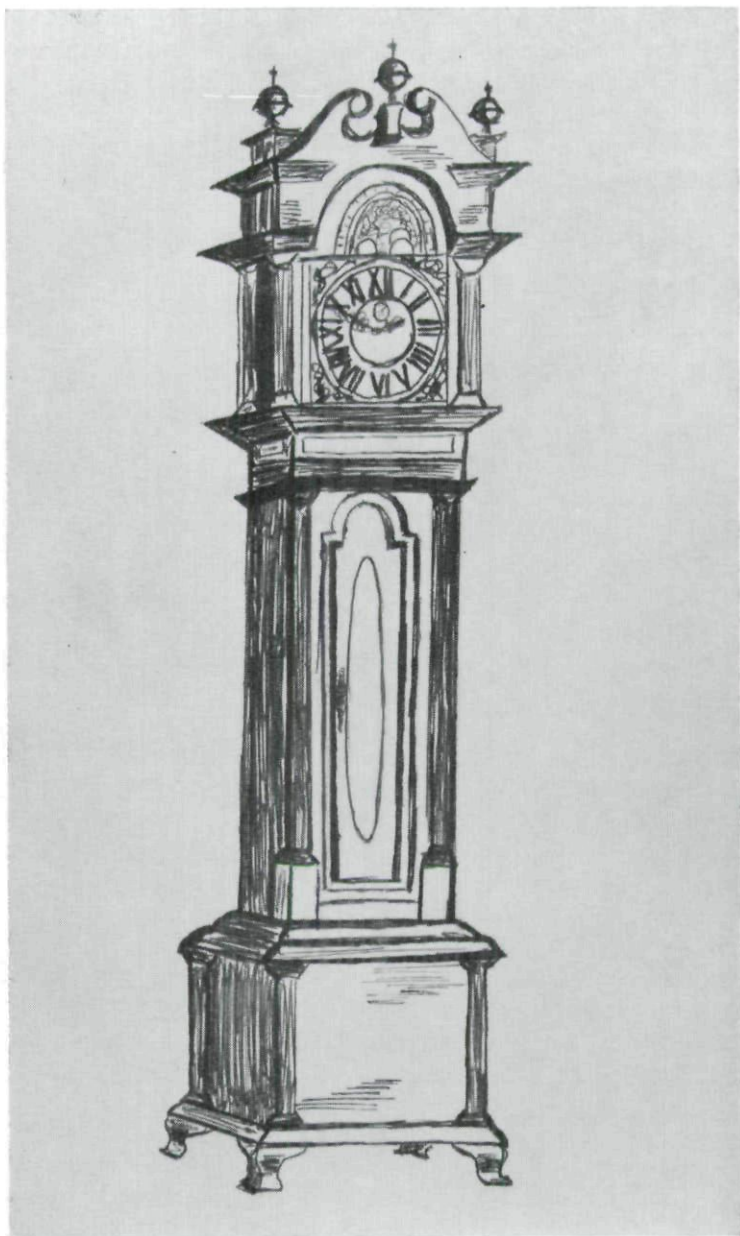
Cross-over
Loop
Sketch G



Matching
Hands
Sketch H

Many clocks made between 1700 and 1800 had moon dials. The moon dial was particularly practical in days when street lighting was non-existent and lanterns not very effective outdoors, because the traveller had to depend upon the light of the moon. However, knowing when it would be light enough to venture out was only a part of the importance of knowing the phase of the moon. There were also a number of superstitious practices associated with the moon. For example, in some areas it was thought unwise to fasten shingles to roofs when the moon's horns turned up because the ends of the shingles would do likewise. Also, planting times were related by some farmers to the moon, as seeds were expected to germinate more rapidly when the moon was waxing.

Another addition to the clocks was a calendar indicating the day of the month—a very useful service in days when there were no daily newspapers and no radios. It was most usual to show the date through a small aperture in the dial.



Burnham Family Clock

The State Historical Museum, Des Moines, displays a grandfather clock previously owned by the Burnham family. The clock is located in the autograph room, first floor west. Manufactured in Connecticut around 1795 and of English style, the clock stands over seven feet in height and is made of solid mahogany. It is designed to indicate seconds, minutes, hours, days of the month and phases of the moon. It was bequeathed to the Historical Department of Iowa by Judge E. L. Burnham in 1910.

TO IOWAY FOR KEEPS

By Lida L. Greene

Librarian of Iowa State Historical Library

Two years ago LeRoy Shutes of Bloomington, Ill., wrote to ask about early roads through central Iowa. There was a diary in his family, he said, that told about the journey of Hiram Shutes and his brood from Ohio to Iowa during the Civil War. He had retraced their travels via books, maps and concrete pavement, but middle Iowa was so recently settled at the time that he had not been able to locate the trail that crossed the Des Moines River by bridge, ran through Adel and Panora and on to Carroll County. What could we do to help him?

This is the kind of question, need I say, that makes a librarian turn pale. For an era when stage coach routes might change from month to month and state roads were parallel ruts straddling tree stumps or skirting swamps, it takes time, sleuthing and a modicum of ESP to track a pioneering conestoga. Still, we tried.

The staff unlocked map drawers, dug into early gazettters, and even located the original of a chart on blue letter paper captioned, *Newton to Adel, 1850s*. The Shutes had reported following the hand cart trace of the Mormons and since this varied from wet to dry weather and according to the needs of the particular party, we could not be sure where these

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