

## Early Lighting Devices in Iowa

BY JOHN R. VINCENT

DIRECTOR, SANFORD MUSEUM AND PLANETARIUM, CHEROKEE

Early settlers in Iowa brought a surprising variety of household lighting devices from their homes further east. Many items of household equipment were left behind in the western immigration because of lack of space in the wagons or because replacements could easily be manufactured at the new home site. However, devices for illuminating the pioneer home often accompanied the westward immigrant because they were not easily manufactured, were considered very essential, and were easily transported. Improvements in home lighting devices were painstakingly slow until the dramatic arrival of the electric light. As a consequence, many homes were lighted with primitive devices until comparatively recent times.

One of the most primitive lamps used by the first settlers in Iowa was the iron "Betty" or "Phoebe" lamp. The "Betty" lamp in picture 1 closely resembles in design and principle Roman, Greek and Assyrian devices taken from deep in the earth by archaeologists today. The body of the lamp is of wrought iron, designed to hold a quantity of fish or lard oil in which a rag wick is partially immersed at the spout or nose end of the basin. The handle includes a hook that may be passed through a chain or staple for hanging, and a sharpened spike which may be stuck into cracks in stone or log walls. The addition of a second basin to catch the dripping oil from



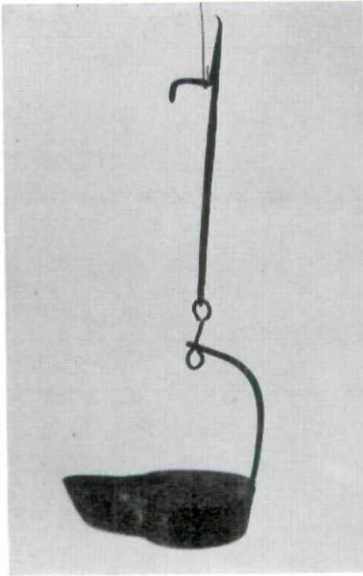
PICTURE 1. BETTY LAMP



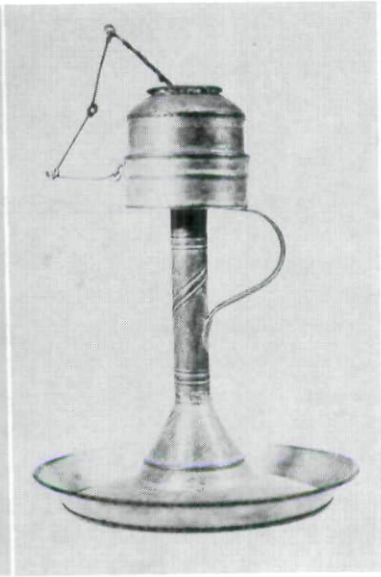
PICTURE 2. PHOEBE LAMP

the burning wick changes the design to a "Phoebe" lamp as seen in picture 2.

A smaller and improved version of the "Betty" lamp may be seen in picture 3. This lamp also has both the hook and spike as a means of suspension and boasts a partially covered oil reservoir to prevent spilling. A small trough in the spout of the oil reservoir serves to hold the burning end of the wick out of the oil and allows any excess oil to return to the reservoir without the necessity for the second catch basin seen in



PICTURE 3. BETTY LAMP,  
SHEET IRON



PICTURE 4. LARD-OIL LAMP, TIN

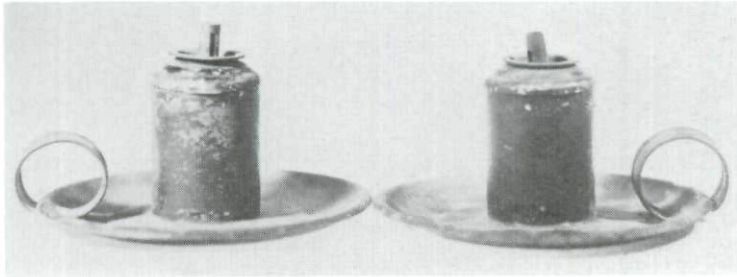
the "Phoebe" lamp. Experiments indicate that a lamp of this type gave unsatisfactory illumination and quantities of disagreeable smoke. The effect of one or two of these lamps burning in a cabin tightly chinked for the winter may be easily imagined.

The "Betty" lamp was slowly improved upon. In many cases a stand of tin was added so that the lamp need no longer hang, but could be conveniently placed on a flat surface. The spouted basin was replaced by a round reservoir for the oil, and a round wick rather than one of twisted rag was institut-

ed. A vastly improved lamp may be seen in picture 4. A hollow metal tube now holds the round wick upright in the oil reservoir at the top of the stand. A basin to catch charred wick fragments and spilled oil has been added, as well as a handle for carrying the lamp. A pointed pick is attached to the reservoir so that charred wick fragments may be picked away, thus giving a brighter light with less smoke.

An infinite variety of lamps were designed which incorporated a vertical tube or spout to hold the wick and facilitate easier burning. Tin was the most common material used in these lamps; however, copper, sheet iron, and pewter were not unusual. Brass was apparently not as popular a material for lamps as it later became for candlesticks.

Picture 5 illustrates a pair of tin lard-oil lamps utilizing the



PICTURE 5. LARD-OIL LAMPS, TIN

spout and round wick previously described. The top to which the spout is attached is threaded so that it may be screwed tightly to the oil reservoir. A small hole near the spout allows the excess oil to return to the reservoir. Lamps of this type were probably used as individual lights rather than for more general illumination.

Another type of grease lamp using the round wick may be seen in picture 6. These curious little lamps were apparently used to light the way to bed. The small quantity of oil they contained makes it difficult to conceive of any other use for them. Should a careless guest forget to snuff out his lamp, little oil would be wasted. Each of these lamps is equipped with a small wire which could be hooked conveniently over the top slat of a chair back. The spout is really a double spout, as the inner tube serves to hold the round wick while the



PICTURE 6. TIN LARD-OIL LAMPS

outer spout catches the excess oil and returns it to the reservoir.

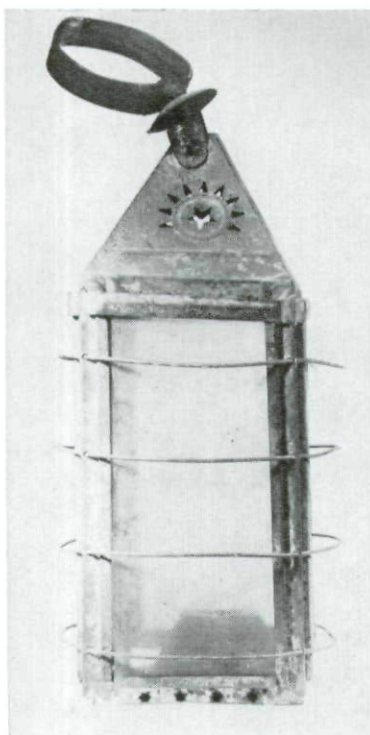
Lanterns as a source of light were widely used about the house and farm since they were the only lighting devices with coverings to protect the flame from drafts. The term lantern apparently derives from the old English "lanthorn" in which thinly scraped pieces of horn were used as windows. It is extremely doubtful if any lanterns with horn windows reached the midwest; but a variety of other lanterns were used. Inside the home they were hung in the stair well or in halls and doorways where drafts made an open flame uncertain. Outside they were employed whenever it was necessary to leave the house after dark or by enterprising farmers who rose before the sun. Some of the early lanterns used oil as a fuel source; however, most of them relied upon the tallow candle.

Picture 7 illustrates an early candle lantern of tin and glass with protective wire guards encircling the fragile glass. Holes in a pattern at the top and bottom allow adequate ventilation for the candle to burn brightly. The carrying handle is separated from the body of the lantern by a swivel wire device which prevents the handle from becoming too hot from the contact with the tin top. Access to the candle is gained by raising a glass panel which moves vertically in the slotted tin.

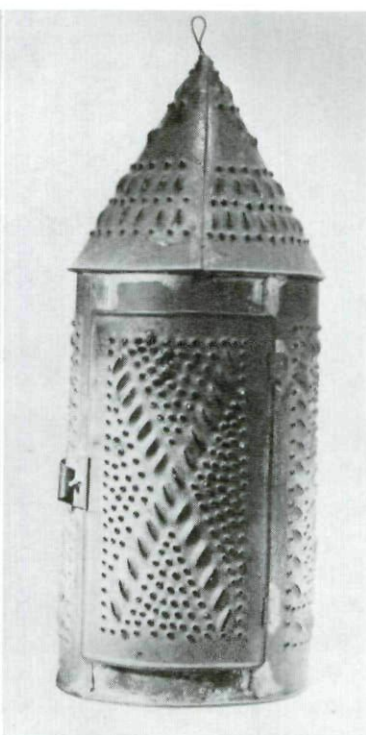


The lantern in picture 8 is a rather common variety of pierced tin lantern, used for the most part as a source of outside illumination. The holes through which the light shines are punched through the tin leaving a rough surface, and the resulting design usually follows a rather ornate pattern. When the lantern is lighted this pattern is projected on darkened objects, giving a rather pleasant effect. The poor illumination provided by lanterns of this type indicates that they were not used as a general light source but only as a secondary source, much as flashlights are used today.

This lantern illustrates the extreme ornamentation often found in the punctured surfaces. Lanterns of this type were used until the introduction of the kerosene lantern, which employs a glass globe and flat wick, and which is still in use



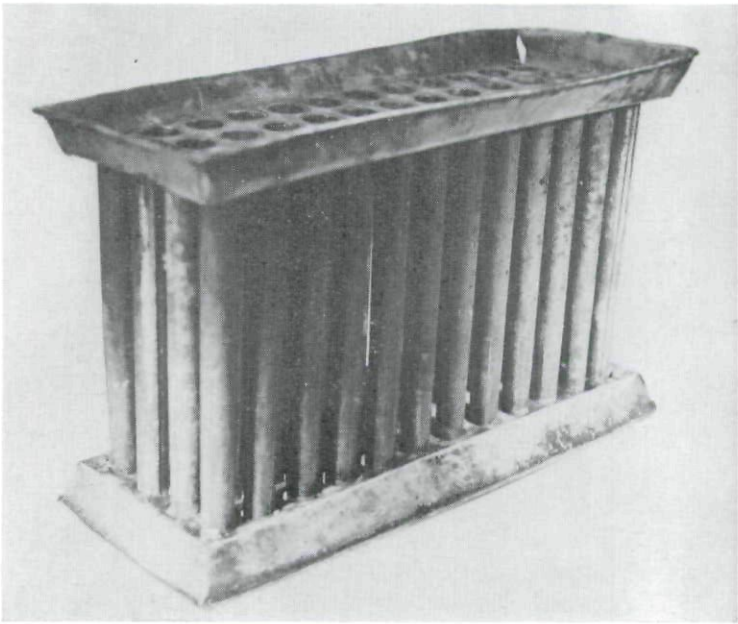
PICTURE 7. CANDLE LANTERN,  
TIN AND GLASS



PICTURE 8. CANDLE LANTERN,  
PIERCED TIN

today. It should be noted that a folding pierced tin candle lantern is available today as a utilitarian item for camping.

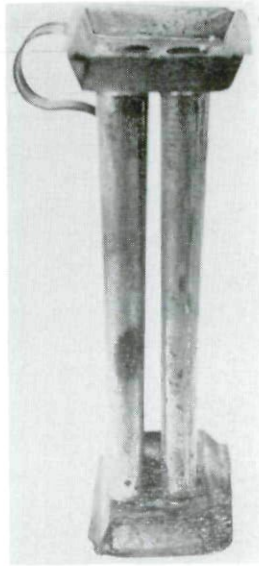
Candles as a source of illumination are one of the few early lighting devices which we still use today. Their current popularity probably stems from their symbolic place in antiquity and the type of soft light which they provide. In early Iowa, however, candles replaced the oil lamp for lighting the home only on special occasions and were considered much too expensive for daily use. Commercial candles were made of bees wax, bayberry, spermaceti, and tallow made from equal parts of beef and mutton fat. The tallow candle could be made at home by the dipping process or in candle molds. The



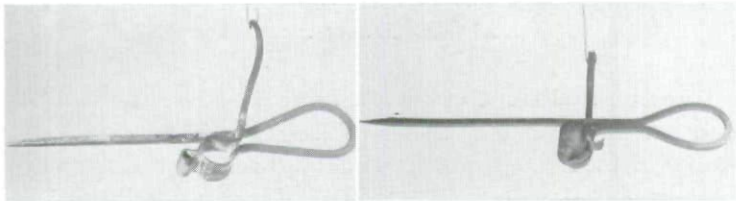
PICTURE 9. TIN CANDLE MOLD

candle mold in picture 9 is a rare type which molds 48 candles at a time. This particular mold arrived in northwest Iowa in 1855. Two, four, six and twelve stick models were much more common. Picture 10 illustrates a six stick model with handle.

The primitive wrought iron candle holder in picture 11 re-

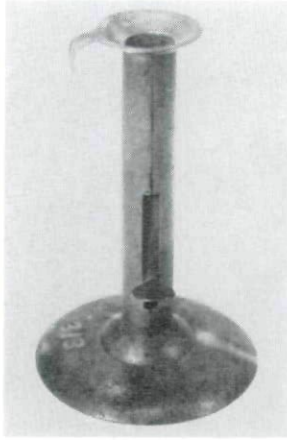


PICTURE 10. TIN CANDLE MOLD

PICTURE 11. CANDLE HOLDER,  
WROUGHT IRONPICTURE 12. CANDLE HOLDER,  
WROUGHT IRON

semples the "Betty" lamp in its simplicity of design. The skilled blacksmith who manufactured this holder provided it with a spike for sticking in convenient cracks and holes as a means of support. The hook could be used to suspend the holder from the ceiling or from any projecting object. The candle is held in the bottomless socket by the tension on the socket, which has a clasp-like action. The holder in picture 12 has a hooked projection on the socket that may be grasped to release the tension on the candle stub for easy removal. A saucer-like bottom is noticeably lacking in the two above mentioned holders and there is no provision for the attachment

of one. It can therefore only be assumed that the hot tallow was allowed to drip upon whatever the holder was placed, or that a separate catch basin was used. Modern dripless candles make it difficult to imagine the amount of tallow that escaped a tallow candle burning in a drafty room.



PICTURE 13. SHEET IRON CANDLE HOLDER

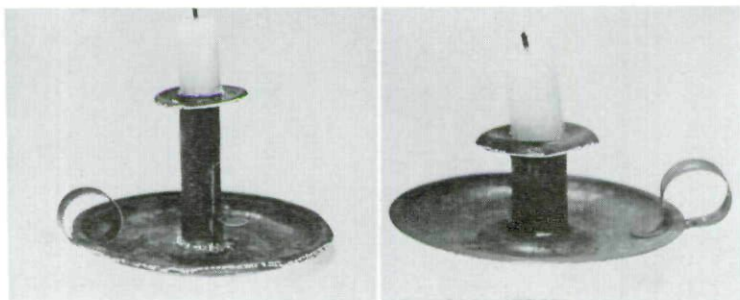
The iron candle holder in picture 14 has a hook for carrying and hanging over convenient projections. However, the location of the hook precludes hanging from the ceiling, and a base has been added so that it may be set on any flat surface. Picture 14 exhibits a candle holder in which a catch basin has been added to the base of the tube. Further refinements in-



PICTURE 14. SHEET IRON CANDLE HOLDER



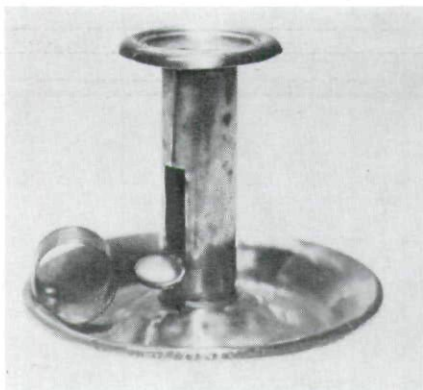
clude the addition of a decorative handle at the edge of the basin. Both of the above examples have a mechanism for sliding the candle up and down in the holding tube and for ejecting the stub of the candle. The tin candle holder in picture 15 is very similar in design to the previous sheet iron



PICTURE 15. TIN CANDLE HOLDER      PICTURE 16. TIN CANDLE HOLDER

holder. They differ in that the sheet iron holder is of sturdier construction and of earlier manufacture. The small tin holder in picture 16 probably served the function of lighting the way to bed as did the smallest of the previously described grease lamps. Unfortunately, few of the sheet iron and tin plated lighting devices have survived because of their tendency to rust and corrode with the passage of time.

It is difficult to determine the most popular material used in the manufacture of candle holders. Brass candle holders have survived in greater numbers than those made of other materials, largely because of their sturdy construction and resistance to corrosion. The small candle holder in picture 17 is of very thin brass which has been hammered over iron rings placed in strategic places to give the whole device strength and rigidity. Heavy brass candlesticks of the type pictured in picture 18 have survived in large numbers compared to other lighting devices. These tastefully executed candlesticks were both beautiful and functional, and were considered an item of household "wealth." A pair of candle-



PICTURE 17. BRASS CANDLE  
HOLDER



PICTURE 18. BRASS CANDLE  
HOLDER

sticks such as these could add dignity to the simplicity of a pioneer mantle or table.

In concluding this survey of early lighting devices in Iowa, we might well consider some of the small implements and objects which were used in connection with the devices themselves.

The sulphur match as a source of fire had been in use for a considerable length of time before the first settlers entered Iowa. However, matches were not available in unlimited supply, were expensive, and were subject to damage through dampness. For these reasons the early settlers brought flint, tinder, and steel for use when no other source of fire was available. The German silver tinder box pictured in picture

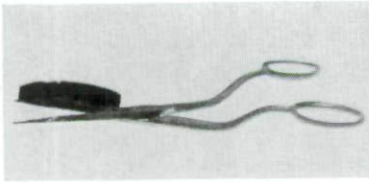


PICTURE 19. GERMAN SILVER  
TINDERBOX WITH FLINT AND STEEL

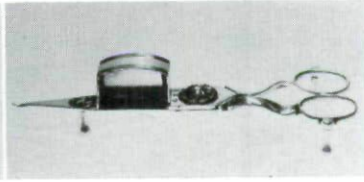


PICTURE 20. BRASS TINDERBOX

19 contains a hand forged piece of steel for striking. Skill and patience are very necessary if a light is to be kindled with these implements. The brass tinderbox in picture 20 is equipped with a movable bottom which can be used to push out the necessary fire building implements. This movable bottom was apparently attached to the cap so that neither could be lost



PICTURE 21. CANDLE SNUFFER,  
STEEL AND BRASS



PICTURE 22. CANDLE SNUFFER,  
SILVER PLATED

A scissors-like instrument called a snuffer was often used in caring for lamps and candles. The scissors action was used to trim off charred and unconsumed wicks, while the attached curb or box caught the charred fragments and prevented them from falling to the floor. This type of snuffer is to be distinguished from the cone shaped extinguisher used in putting out candles and lamps. The snuffer in picture 21 is apparently fashioned from a pair of scissors by the addition of a brass curbing to the top blade. The handles have been bent upward to make them easier to grasp. The silver snuffer in picture 22 is of a much more elaborate design in which the trimmed wick fragments are enclosed in a small box. In this instance, feet have been added to raise the snuffer so it may be more conveniently picked up.

It is hoped that this brief study has given the reader a general picture of the lighting devices used in the households of pioneer Iowans. These primitive devices were gradually improved upon, and from them a great variety of similar but more advanced types were developed. The entire evolution of artificial lighting in America has been a very dramatic one, well illustrated by the contrast between the pioneer's whale oil lamp and our own modern electric lighting fixtures.

Copyright of Annals of Iowa is the property of State of Iowa, by & through the State Historical Society of Iowa and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.