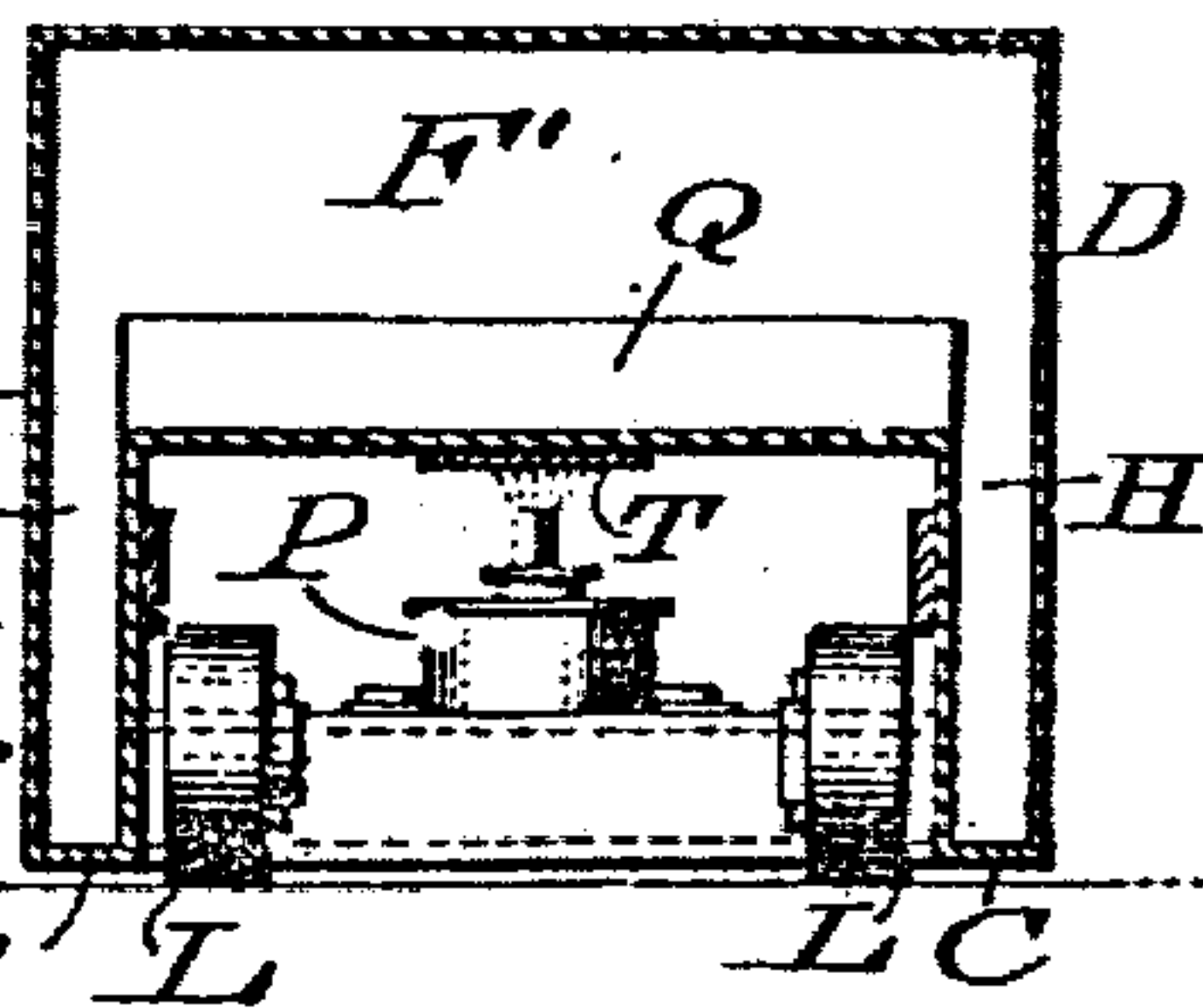
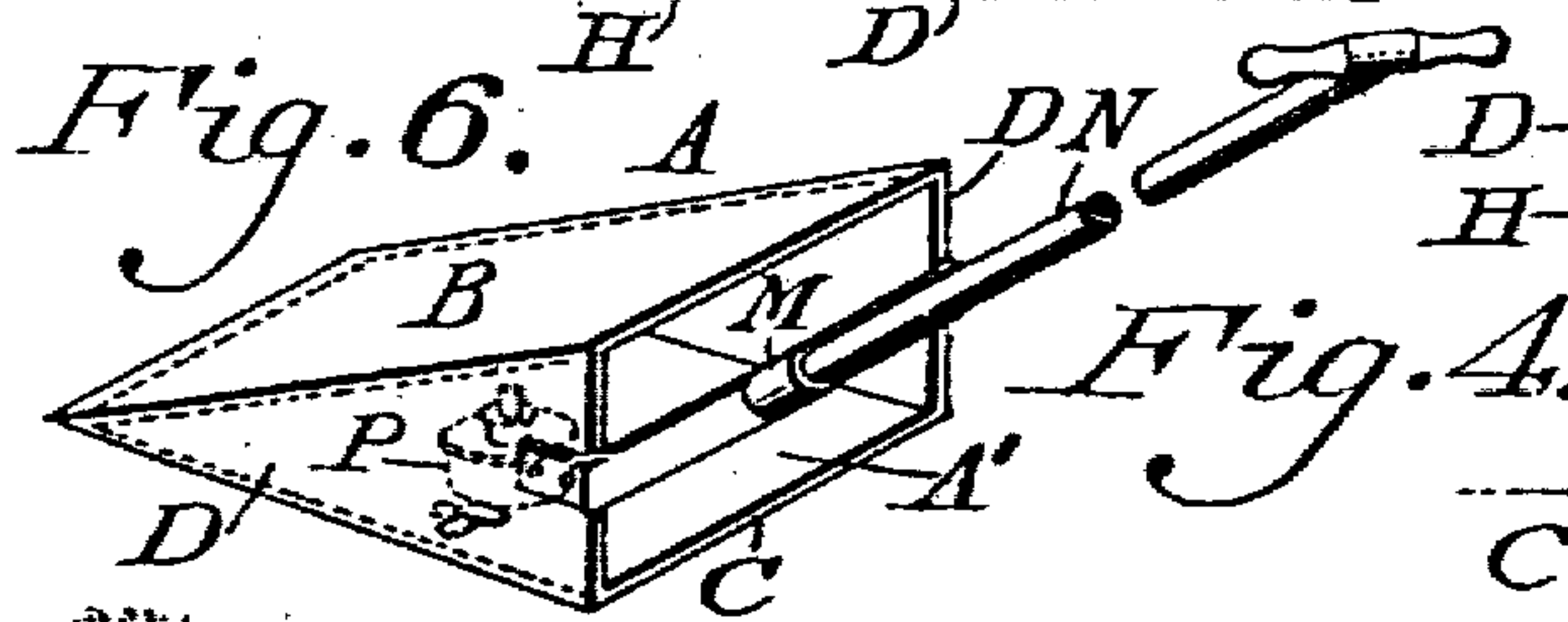
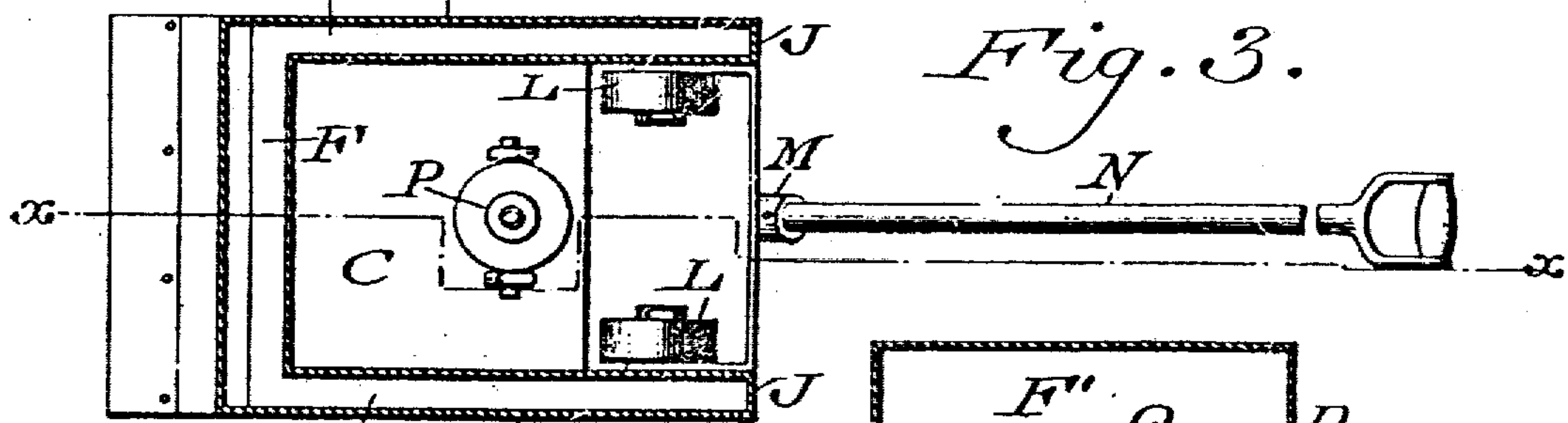
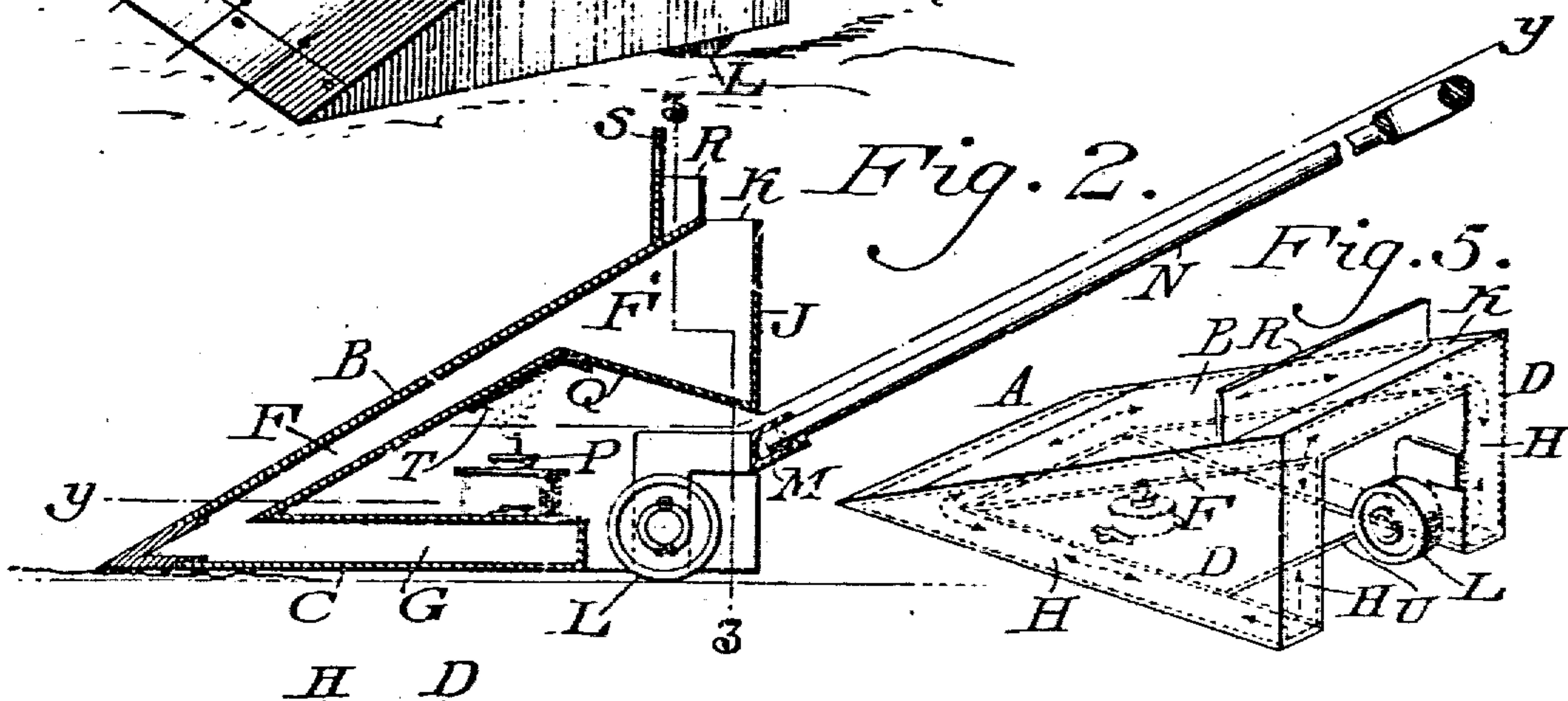
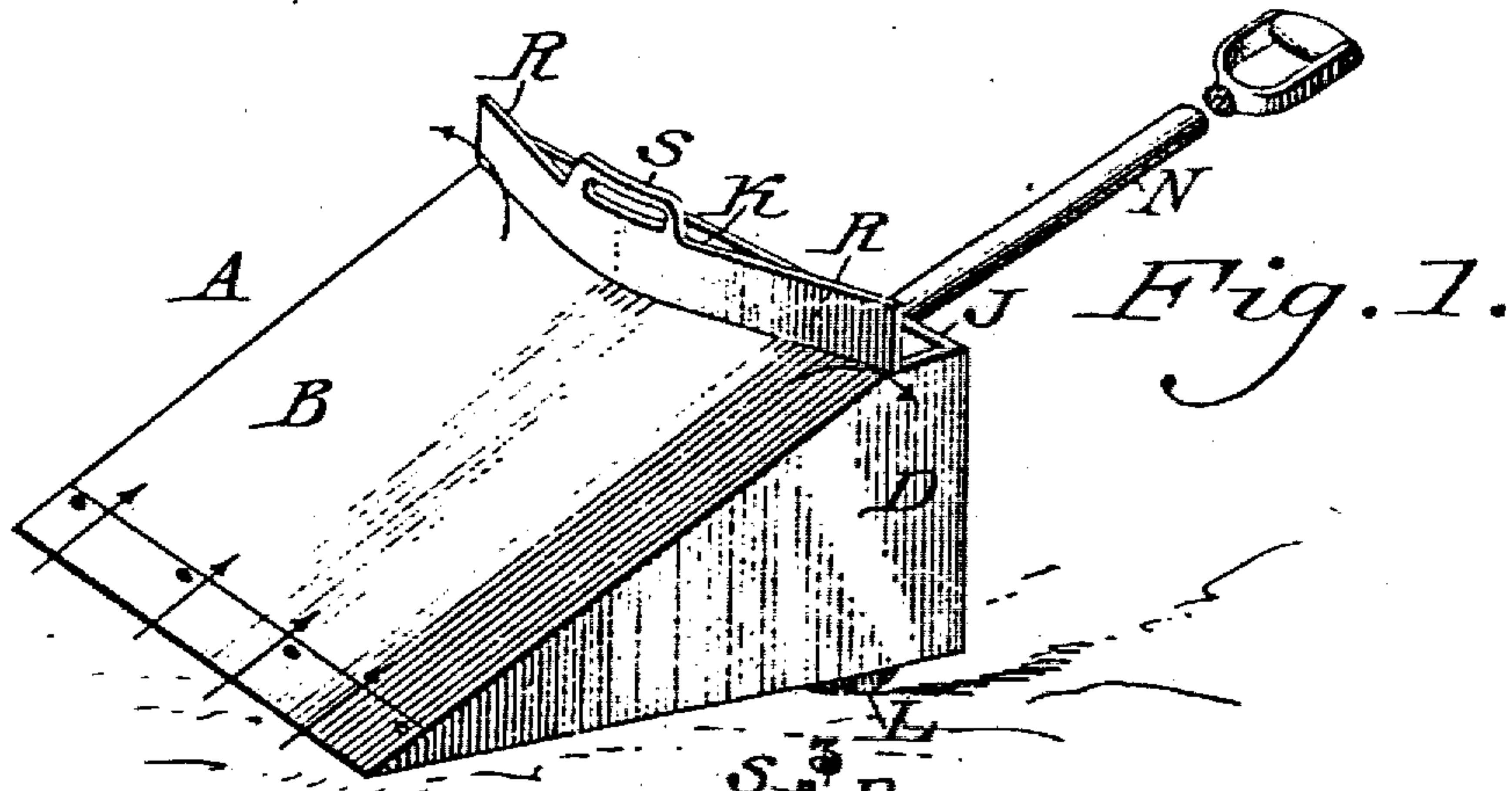


No. 768,923.

PATENTED AUG. 30, 1904.

J. A. WIEDERSHEIM.
SNOW SHOVEL AND MELTER.
APPLICATION FILED JAN. 19, 1904.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

JOHN A. WIEDERSHEIM, OF PHILADELPHIA, PENNSYLVANIA.

SNOW SHOVEL AND MELTER.

SPECIFICATION forming part of Letters Patent No. 768,923, dated August 30, 1904.

Application filed January 19, 1904. Serial No. 189,765. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. WIEDERSHEIM, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Snow Shovels and Melters, of which the following is a specification.

My invention consists of a snow shovel and melter embodying a hollow body having a sloping top, so as to lift the snow, a lamp or like means within said body, so as to heat the latter to melt the snow as it contacts with said top, a roller or wheel on which the shovel may be easily moved over the sidewalk, street, road-bed, &c., double walls forming chambers adapted to receive a heating medium whereby the snow coming in contact with the shovel will be most effectively melted, means for continuing the heat of said chambers, and means for temporarily confining the heat in said body, so as to exert itself on a large surface of the shovel prior to escape, and other details of construction, as will be hereinafter set forth.

Figures 1, 5, and 6 represent perspective views of snow shovels and melters embodying my invention. Fig. 2 represents a vertical section taken on line $x-x$, Fig. 3. Fig. 3 represents a horizontal section on line $y-y$, Fig. 2. Fig. 4 represents a vertical section on line $z-z$, Fig. 2.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates the body of the snow shovel and melter, the same having a sloping top or share B, a bottom or shoe C, and sides or legs D, the latter depending from said top and extending to said bottom, with which and said top they are connected, said bottom extending horizontally or comparatively horizontally, so as to be parallel or comparatively parallel with a sidewalk, street, &c. The walls of said parts B CD are double, forming chambers F G H, which are in communication with each other, the rear of the chambers F H being closed by the walls J, which extend to the upper end of the shovel and are separated from the rear terminal of the sloping top B, leaving between them the passage or inlet K, whereby

the chambers F G H may be supplied with water or other fluid or material when so required.

Mounted on the rear portion of the shovel are the rollers or wheels L, by which the shovel may be readily propelled, and at said portion is the connection M for a handle N for manipulating the shovel.

Supported within the body below the chamber F is the heater P in the present case of the form of a lamp, it being noticed that the rear portion of the lower wall of said chamber is turned at its rear downwardly, so as to form a deflector Q to retain the resultant heat within the interior space of the body, and thus cause the heating of the walls of the adjacent chambers, the effect of which is communicated to the water therein, said deflector Q also increasing the capacity of the rear portion F' of the chamber F, so as to admit of the use of a larger volume of water within the body.

Rising from the body is an obliquely-extending plate R, forming a deflector and guard which is in front of the inlet K, whereby snow or water that may ascend or lodge on sloping top B is deflected laterally from said top when it reaches said guard and said inlet is protected from the entrance of snow and water.

S designates a handle or grip, which in the present case is formed or connected with the guard R, whereby the device may be conveniently carried by the same.

The operation is as follows: The chambers are supplied, say, with water, preferably in hot condition, introduced at the inlet K, thus heating the walls of the device. The lamp is lighted and its flame is directed against the under wall of the chamber F, thus serving to boil the water for increasing the temperature thereof or maintaining or approximately maintaining the temperature of the hot water originally employed and preserving the hot walls of the chambers, the water circulating through the various chambers and the steam therefrom escaping at said inlet or passage K. The body or shovel, hand-propelled, is advanced against the snow, which may be deep, and the latter is pushed with the shovel

and raised by the top B and so subjected to the heat of the latter, whereby it is melted, the water returning to the pavement, &c., the moist or damp snow being prevented from sticking to the shovel. Any snow contacting with the sides of the body is also melted, while the bottom or side C, which is also heated, melts any snow or ice on the pavement, &c.

The handle which is employed to propel the shovel is also utilized to raise the front of the same, and thus vary the distance of the point from the surface upon which the rollers rest as may be needed to clear said point from obstructions or for other evident purposes.

A suitable deflector F may be placed above the lamp to prevent direct action of the flame or heat thereof against the under wall of the chamber E, which wall like others of the device, may be made of sheet-iron or other light but durable sheet metal, but to which I do not limit myself.

In Fig. 5 the bottom chamber G as such is dispensed with and the lower wall of the upper chamber joins the front portions of the inner walls of the side chambers. A horizontally-extending plate U extends across the bottom portion of the body, joining the side chambers and the lower wall of the front chamber, thus closing said bottom portion and providing a rest for the lamp or auxiliary heating device P, if required.

In Fig. 6 the body is shown as constructed of a sloping top, a horizontally and transversely extending bottom and sides, and a heating-chamber A' within the same. The rollers and guard are dispensed with, but may be employed as in the other figures, and a different handle-grip is shown.

Various changes may be made in the details of construction shown without departing from the general spirit of my invention, and I do not, therefore, desire to be limited in each case to the same.

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

1. A hand-propelled snow shovel and melter composed of a hollow body having a sloping top and a heating device within said body below said top.

2. A snow shovel and melter composed of a body having a sloping top with double walls forming a fluid-containing chamber and means in said body for heating said chamber and the fluid therein.

3. A snow shovel and melter consisting of a body having a chambered top and a chambered bottom, the chambers of said parts being in communication and a portable heating device between said chambers, the latter being adapted to contain a heating fluid.

4. A snow shovel and melter consisting of a body having a chambered top, a chambered bottom, and chambered sides, the chambers of the several parts being in communication, and a portable heating device within the body for heating said chambers, the latter being adapted to contain a heating fluid.

5. A snow shovel and melter comprising a hollow body having a sloping top, means forming a liquid-receiving chamber beneath said top, and a lamp supported in said body beneath said chamber.

6. In a snow shovel and melter a body having a sloping top with double walls forming a liquid-receiving chamber, and a heater supported in said body below the under wall of said chamber, said under wall being deflected downwardly at its rear end.

7. In a snow-shovel, a body having a chambered top adapted to contain a heated fluid, an opening in said top leading to the chamber therein and a guard and lateral deflector on said top forward of said opening.

8. In a snow-shovel, a body having a chambered top adapted to contain a heated fluid, an opening in said top leading to the chamber therein, a guard on said top forward of said opening and a handle on said guard.

9. A snow shovel and melter comprising a hollow body, having a sloping top and depending sides, means forming liquid-chambers of which said top and sides form exterior walls, and a lamp suitably supported in said body for heating said chambers.

10. A snow shovel and melter comprising a hollow body, a liquid-receiving chamber beneath the top of said body, and means for heating the liquid in said chamber, said chamber having a liquid-supply opening and a guard in front of said opening for deflecting snow and water from the latter.

11. In a snow shovel and melter, a body consisting of a top, a bottom and sides, a chamber within the same, a portable heating device in said chamber and a handle connected with said body.

12. A heated hand-propelled snow-shovel having supporting-rollers, common means for propelling the shovel and for varying the distance of the front of the shovel from the surface upon which the rollers rest, and a portable heating device in the body of the shovel.

13. In a hand-propelled snow-shovel, a source of heat, a surface heated thereby, a surface to make contact with the snow, and a fluid heat-transmitting medium between these two surfaces.

JOHN A. WIEDERSHEIM.

Witnesses:

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W. S. JACKSON.