

UNITED STATES PATENT OFFICE.

M. C. CAMPBELL, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED ARTIFICIAL SKATING-POND.

Specification forming part of Letters Patent No. 47,391, dated April 25, 1835.

To all whom it may concern:

Be it known that I, M. C. CAMPBELL, of Philadelphia, in the State of Pennsylvania, have invented a certain new and useful composition of matter, which I term an "Artificial Skating-Pond;" and I do hereby declare that the following is a full, clear, and exact description of the same, and the method of carrying it into effect.

It has long been a matter of regret that the healthful and pleasing exercise of skating should be restricted in temperate climates to the few months of winter; but limited as may be the season for its enjoyment, its intrinsic excellence has secured for it an almost universal popularity. As exciting as the chase, as graceful as the dance, and as invigorating as equestrian exercise, it may be cultivated as a special art to a degree of perfection from which the possessor may derive the satisfaction ever attendant upon the consciousness of superior skill; or it may be combined with an extended association in which the pleasure of the individual may be enhanced by the enjoyment of others. Its adoption and extensive practice by ladies has given it a charm, in addition, which renders it equal in that respect to any other social pastime. It is a misfortune, however, that materially interferes with the practice requisite for proficiency in the art, and with its enjoyment after it has been acquired, that it is so largely dependent on the weather that even the short season of the winter months is seriously encroached upon by the thaws and rains and snow rendering the ice unsafe, or its surface unfit for use. The various attempts that have been made to render skating independent of ice hitherto have been unavailing, for, however perfect a surface might be obtained with regard to smoothness, the necessity for the recourse to roller-skates interferes so much with the freedom and celerity of motion that it has afforded but little pleasure under the most perfect attainable conditions, and rendered it, in fact, of no use whatever to any other than learners, who have been compelled to practice laboriously to make the slightest progress in the rudiments of the art. The nicest possible adaptations of rollers or wheels admit, at the best, of but a poor counterfeit of the easy gliding motion of polished steel when acting upon the smooth surface of a material

like ice, over which it slides without friction, and yet obtains a hold by its incision that gives certainty and precision to every movement of the skater.

The object of my invention is to obtain a material like ice for skating purposes, into which the runner of an ordinary skate may cut sufficiently to give a firm hold in striking out, and over which it will glide with as little friction as possible; to obtain, in fact, a material or composition upon which the skate operates in precisely the same manner as upon ice, and yet so constituted that it is not subject to alteration by variations of temperature, and remains in as good condition when subjected to the heat of an ordinary summer day as does the ice of a skating-pond during the season best adapted for skating. To attain this end, my invention consists in covering a smoothly-prepared surface—such as a well-made floor—with a coating of chemical salts or crystallizable composition of matter, in such a manner that it will congeal into a surface with a close similitude to that of ice, (considered simply in reference to skating,) and yet differing from ice in the important feature (which constitutes the entire aim and value of my invention) that it is not affected by the moderate temperature of the atmosphere during the summer months.

To enable others skilled in the arts to which it appertains to make and use my invention, I will proceed to describe in detail what I believe to be the best method of compounding and applying the same. I take equal weights of carbonate of soda (the sal-soda of commerce) and of sulphate of soda (Glauber's salt) in the proportion of about one pound of each for every square foot of the surface required to be prepared, and place them, mixed together, in a tinned iron kettle, which should be covered and heated until its contents have become fluid. The cover is then removed and the heat continued, while the mixture is constantly stirred, until it has lost from fifteen to twenty per cent. of the water of crystallization, when it should be removed from the fire and the stirring unremitted until it becomes cool. It is then poured or "cast" upon a section of the floor that is to be employed as a foundation, and which should be divided by strips of wood into sections of a size proportioned to the

quantity of material prepared, as previously described. After it has become "set" or congealed, and before the adjacent section is cast or poured with an additional supply of material, the intervening strip of wood is removed, so that the newly-added portion may coalesce with that first prepared and make with it a continuous surface. In this manner section after section may be prepared until the entire area desired may be covered; and any inequalities at the junctions of the sections may be smoothed, with an ordinary scraper, to render the whole surface smooth and uniform. If the composition should become deteriorated by the effervescence of the salts employed, as will occasionally occur, it will be necessary to sprinkle it with water to remedy the evil; and when it has been much cut up the skates, the surface may also be renewed by sprinkling it with a saturated solution of the sweepings, in

water, applied with a watering-pot or other suitable means.

Having thus described the means and method which I prefer to adopt in carrying my invention into effect, I wish it to be understood that I do not confine myself particularly to the two salts or the proportions herein mentioned, as there may be other similar salts or compositions that congeal in the same way, and are as unaffected by a moderate temperature, and are as suitable for skating purposes.

I claim as my invention and desire to secure by Letters Patent—

The preparation of a surface with a congealed material or composition, substantially as described, and for the purpose specified.

M. C. CAMPBELL.

Witnesses:

WM. H. BROWN,
CHAS. P. LYLE.