

Heating and Cooling Air.

(Commercial, Cn., O.)

In my communication on "The Principles involved in Heating and Cooling Air," published in this morning's paper, the typos make me to say that "in converting water at 32° into steam, an additional amount of sensible heat, equivalent to 1146°, is rendered latent," where, in fact, I said 1146 without any decimal point.

What I wanted to have understood was, that enough sensible heat is rendered latent in converting one pound of water at 32° into steam to raise the temperature of one pound of water from 32° to 1146°, or to more than the temperature of red-hot iron, or ten pounds of water from 32° to 1146°. The error is a very small one, consisting only of a point, but that point is a decimal point, and a decimal point is a very important thing if it happens to get out of place, as for example thus: \$10.00—\$1000—which, you see, is not exactly the same thing. The conversion of ice into water renders latent an amount of sensible or free heat sufficient to raise an equal weight of water 140°, or from 32° to 172° Fah. In converting water at 32° into steam it must first be raised to the boiling point, which is 212°, which is hot as water can be made when heated in an open vessel. In the conversion of boiling water into steam, enough sensible heat is rendered latent to raise the equivalent of the steam in boiling water 966.6° above the boiling point, 212°. Please correct and oblige

Yours truly,

JOHN KING.

August 10, 1882.

Try to Please Everybody and You'll Please None.

(Boston Post, July Weather.)

A season of unusual character is sure to call forth, even from persons of much experience, the observation that they remember nothing like it before. In truth, the power of accurately recalling past weather is excessively rare; and, in the absence of precise records, the memories of the oldest inhabitant must be received with doubt. The weather which is fine we accept as a matter of course, and forget it as soon as it is over; while that which is the reverse of fine scarcely produces a more permanent impression. It is said, by those who have studied such subjects that no effort of memory can recall a vivid impression of past pain, and there is probably much truth in the statement. The power of appealing correctly to experience, which superficial people regard as an elementary gift of nature is, in fact, a product of the highest intellectual cultivation, and is simply impossible to the illiterate or untalented. There may be no intention to deceive, but there is an incapacity to observe or record with accuracy. Astronomers tell us that the regions of the earth which now enjoy a temperate climate will at some remote future pass once more through a glacial epoch, but it is a favorite assertion with the aged that the climate of these islands is manifestly diminishing in severity. There are no such winters now, we hear, as those of the "good old times," when scarcely a December passed in which the squire's horses requisitioned in order to assist in dragging the mail coach out of the snow-drifts, or the able-bodied men of the parish to cut a passage for it with their picks and spades. Two years ago the snow in Oxford street might have rivaled, even if it did not surpass the best achievements of Salisbury. Plain in the days of our grand fathers, the truth probably is that the seasons moved very much in cycles, the causes of which we may hope that meteorology will some day unravel.

On the Portland, Me. coast the weather during the greater portion of July remained hot and dry, although to the Westward and Northward frequent rains and thunder-storms occurred. The most prevalent winds were from Westerly and Southerly points. This condition, we were informed, was unusual for this section of the Atlantic Coast.

A Rain of Spider Webs.

(FROM THE SCIENTIFIC AMERICAN.)

In the latter part of October the good people of Milwaukee (Wis.) and the neighbouring towns were astonished by a general fall of spider webs. The webs seemed to come from "over the lake," and appeared to fall from a great height. The strands were from two feet to several rods in length. At Green Bay the fall was the same, coming from the direction of the bay, only the webs varied from sixty feet in length to mere specks, and were seen as far up in the air as the power of the eye could reach. At Nesberg and Fort Howard, Sheboygan, and Ozaukee, the fall was similarly observed, in some places being so thick as to annoy the eye. In all instances the webs were strong in texture and very white.

Curiously there is no mention, in any of the reports that we have seen, of the presence of spiders in this general shower of webs. It is to be hoped that some competent observer—that is, some one who had made a study of spiders and their habits—was at hand and will report more specifically the condition of this interesting phenomenon.

Quite a number of notable gossamer showers have been reported in different parts of the world. Whites describes several in his history of Selborne. In one of these the fall continued nearly a whole day, the webs coming from such a height that from the top of the highest hill near by they were seen descending from a region still above the range of distinct vision.

Darwin describes a similar shower observed by him from the deck of the Beagle, off the mouth of La Plata River, when the vessel was sixty miles from land. He was probably the first to notice that each web of the gossamer carried a Lilliputian aeronaut. He watched the spiders on their arrival and saw many of them put forth a new web and float away.

The behaviour of the spiders when setting out upon their aerial voyage has been minutely described by a recent English observer. The shower observed by him occurred in September, 1875, after a thunderstorm without rain. He says:

"About ten a.m. I noticed small spiders running over my coat-sleeves, and had to brush off several trails of gossamer web. Looking round I found that brick walls, houses, branches of trees, &c., had these webs dangling from them, and that other gossamer webs were continually falling from above and adding to the accumulation. By mid-day a long fence was festooned from point to point of its triangular railtops with a ribbon-like ladder of gossamer; and this was growing broader and broader as the tiny creatures kept running along the ladder, each increasing the breadth by adding its own contribution of another silken thread.

"On examining next an iron palisade near I found it in a similar condition, with the tops of the iron spikes connected by a vibrating silken ladder of gossamer, in some place nearly an inch broad. All along this ladder the little strangers were running in an excited and hurried manner, as if they had lost their way and had got into a strange country. Some, in travelling over their improvised road, made mistakes, and got into bordering webs of the garden spider, where they were speedily devoured. About 1 p.m. the cloud cleared off the sun shone out, and I noticed that some of the spiders had begun to reascend into the atmosphere. They might have commenced this reascension earlier; but on observing that some were reascending all my attention was devoted to single spiders, and this is what I saw: Fixing my eyes upon one of them, I observed that as it left the gossamer pathway it selected a clean spot on the iron railing, and gathering its limbs closely together it projected from its spinnerets several threads, which ex-

panded outward and stretched upward from nine to twelve inches. Then this parachute seemed to show a buoyant tendency and suddenly the tiny creature left hold of the iron rail, or was lifted off it, and quickly "vanished into the air." One after another I closely watched, with the same general result; though once or twice when the spider left the rail it floated for a few seconds in an almost horizontal direction, prior to changing for an approximately vertical one. They, however, disappeared from sight so quickly that the angle of ascent could only be guessed at. This however, may be set down, as the rule, as from miles to one hundred and twenty degrees."

Buttermilk as a Summer Drink.

A recent writer asserts that for a hot-weather drink nothing equals buttermilk. It is, he says, "both drink and food, and for the laborer is the best known. It supports the system, and even in fever will cool the stomach admirably. It is also a most valuable domestic remedy. It will cure dysentery as well as and more quickly than any other remedy known. Dysentery is really a constipation, and is the opposite of diarrhoea. It is inflammation of the bowels with congestion of the 'portal circulation'—the circulation of blood through the bowels and liver. It is a disease always prevalent in the summer and autumn. From considerable observation I feel warranted in saying that buttermilk, drunk moderately, will cure every case of it; certainly when taken in the early stages."

Milk Diet.

If any one who wishes to grow fleshy, a pint of milk taken on retiring at night will soon cover the scrawniest bones. Although we see a good many fleshy persons now-a-days, there are many lean and lank ones, who sigh for the fashionable measure of plumpness, and who would be vastly improved in health and appearance could their figures be rounded with good solid flesh. Nothing is more coveted by a thin woman than a full figure, and nothing will so raise the ire and provoke the scandal of the "clipper-built" as the consciousness of plumpness in a rival. In a case of fever and summer complaint milk is now given with excellent results. The idea that milk is feverish has exploded, and is now the physician's great reliance in bringing through typhoid patients, or those in too low a state to be nourished by solid food. It is a mistake to scrimp the milk pitcher. Take more milk and buy less meat. Look to your milkman; have large-sized, well-filled milk pitchers on the table each meal, and you will have sound flesh and save doctor's bills. — *Housekeeper*.

More August Disturbances.

SERIOUS DAMAGE TO CROPS IN OHIO.

Cleveland, O., August 9. The *Leader's* special from various places show that heavy rains have fallen throughout northern Ohio every day for nearly two weeks, doing great damage to crops. In many localities the hay crop will be a total loss. Wheat in shocks and stacks has been so wet that it is beginning to sprout and spoil. The oats crop is nearly ruined in several sections, and much damaged everywhere. Corn is seriously injured, though that plant being late is least affected. Rains have been deluges in miniature, the like of which was never known. Previous to this visitation the crop promised an unprecedented yield.

TIMELY RAIN IN NEW YORK.

Watertown, N.Y., August 9. During the last 36 hours most copious rains have fallen over this section of the country. It was much needed. Considerable damage was done by lightning. A large crop of hay has been secured in fine condition. The prospects for a large yield of barley, oats, wheat, corn and potatoes are uncommonly good.

TOO MUCH RAIN IN CANADA.

London, Ont., August 9. A heavy rainstorm in this section yesterday did great damage to crops, particularly of wheat and barley.