

STOVES ECONOMIZING HEAT.

It is well known that cylindrical stoves give out the most heat, and have the best draft, but there are few who seem to know the reason why. They do not seem to be aware, at least, that there is anything in the principle of their construction which imparts to them such qualities. Stove manufactures cannot be accused of possessing too much scientific knowledge regarding the best form of stoves, or we would not see so many blunders committed by them in casting so many with square and rectangular furnaces.—This is especially the case with cooking ranges and stoves,—their fire boxes are constructed on wrong principles.

The reason why a cylinder stove gives out so much heat, and tends to produce such a good draft, is owing to the sides of its fire box or furnace being concave in form. Heat, like light, may be concentrated by concave mirrors; hence the heat is more concentrated in stoves which have concave than those which have square fire boxes; the rectangular form of a fire box may be more convenient for cooking ranges, but there is no excuse for constructing the furnace of any parlor or other heating stove of square form.

The fire-brick for lining stoves should be fluted. Bricks with plain surface are not so durable as the fluted kind, because the latter tends to prevent the adherence of clinker. Some bricks for stoves are actually cast with convex surfaces, as if designed for scattering the rays of heat, thus exhibiting ignorance of the laws of heat.

Bright metal surfaces do not radiate so well as dark, dull surfaces, therefore Russia iron in stoves and pipe does not radiate so much heat into a room as common iron. These surfaces which radiate heat most efficiently also possess the power of absorbing it and *vice versa*.

As the intensity of heat varies as the square of the distance from the radiating point, it is evident that the nearer the stove is placed to the centre of the room, or space which it is designed to heat, the more uniform will be the temperature of the whole space, and not only so, but a greater amount of heat will be economized.

Stove manufactures have devoted an immense amount of attention to elaborate the surfaces of cast-iron-stoves, and to produce an incalculable amount of complicated forms, but not so much to produce stoves based upon the philosophy of the laws of heat. We hope that more attention, scientifically, will hereafter be devoted to this great and important branch of American manufactures.—*Scientific American*.

FOR THE HICCUPS.—Travelling some time since by railroad from Columbus to Baltimore I took my seat immediately in front of a gentleman who was suffering under a paroxysm of hiccups, to a degree that I had never before witnessed. In a few minutes a person appeared from the end of the car and took a seat beside him, when he said: "Sir, can you tell me what is good for the hiccups? I have been afflicted in the way you see me since yesterday noon, and had no rest or relief from any physician to whom I applied for assistance; I am worn out with suffering." To whom the person replied. "Sir, I will cure you in less than ten minutes by the watch.—Have confidence, for I am sure I can do it. Hold up high above your head two fingers of the right hand; lean back in your seat, open your mouth and throat so as to give a free passage to your lungs; breathe very long and softly, and look very steadily at your fingers." In less than the time specified the cure was performed, one hiccup only occurring during the trial. The patient could not express his gratitude, while the practitioner only extracted from him as a fee the promise that he would extend the knowledge which he had imparted as freely as he had received it assuring him that he would never be disappointed in the result. We were all struck with the fact. Since then I have often had occasion to practice upon patients in the same disorder, and never without the most signal success.—*Water Cure Journal*.

CAYENNE.—A Cayenne correspondent of the *Journal du Havre* says:—"The gold fever gains on us seriously; we herewith send you home 30,000f. worth, the produce of a month's labour of 35 miners on the banks of the Arataya, not far from the mountain which bears the name of the Empress Eugénie. Gold is discovered every day and in every direction, but the basin of the Approuague produces the most brilliant results. The governor has gone personally to inspect the principal places. It is a journey of twelve days, which, we hope, will secure to France the possession of a real California in this poor Cayenne, so roughly tried during two centuries."