

shaped like legs, and each terminating in an enormous black shining sting, which is obliquely swollen like that of the scorpion, and, like that, filled with a dangerous venom. These are not its only weapons. At the extremity of its abdomen two elongated glands secrete an abundance of a lactescent, corrosive liquid, which the animal is capable of ejecting against its enemy at will, in order to blind it or render it insensible. Add to this a muscular power so great that it is very difficult to make it let go, even when it has fastened itself to a smooth body, and we shall obtain some idea of the formidable manner in which this species is armed.

It is rare that the bird spider is seen to hunt during the daytime, except near its nest, and principally in dark places; but as soon as night arrives, it leaves its lair. Its wonderful agility, a characteristic which it shares with its congeners, is coupled with rare boldness. It attacks large lizards, like the anolis of the Antilles, and likewise serpents, it is said. These it falls upon as quick as a flash, and seizes by the upper part of the neck, in order to prevent them from resisting. If it surprises a humming bird upon its eggs, it buries its terrible pincers into it between the base of the skull and its first vertebra, injects therein a poison which paralyzes it, and then sucks the blood of its victim at leisure.—*La Nature*.

Live Stock Transportation.

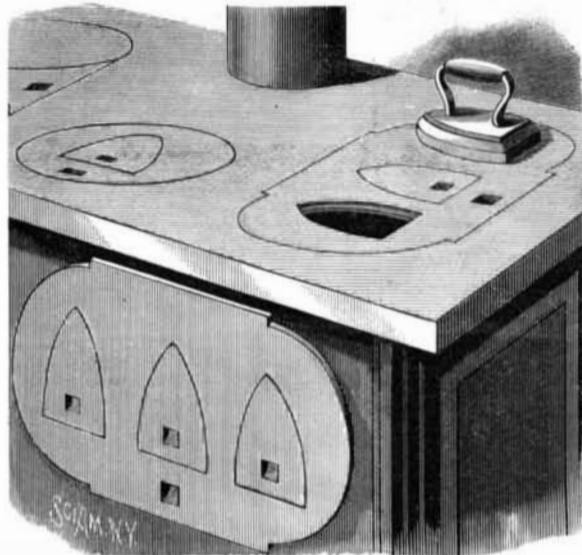
A writer in a recent number of the *Age of Steel*, published in St. Louis, describes from personal observation the cruel treatment to which cattle are subjected while being driven from Texas to Kansas City, and from thence transported by rail to the Eastern seaboard cities. The description, although written apparently in the refrigerator car beef traffic interest, is no doubt substantially true, if, indeed, it does not fall short of the truth in depicting the abuses practiced in live stock transportation. The details need not be recapitulated. It is enough to say that they are revolting to every humane instinct, and a reproach to civilization. It is not alone the barbarities inflicted upon helpless animals to satiate mercenary greed that should attract public attention, but the diseased and unwholesome meats with which our markets are in this way supplied, and to a larger extent than is generally supposed. This concerns everybody, and so far as it exists it is an imposition on the community and a serious detriment to the public health. It is not our purpose, however, to magnify the evils resulting from the rapacity of shippers and carriers in conducting live stock traffic, but to suggest some of the reasons why so little, comparatively, has been accomplished in the way of ameliorating the condition of cattle while in transit over long distances on our railways.

The trouble is not because suitable cars cannot be built, or that cattle cannot be fed, watered, and rested while on their journey; but it results from the necessity of cheapening the cost of transportation by carrying as many cattle as possible in a car, and by continuous running, so as to make the trip in the quickest possible time. This will do very well for short distances that can be made in from 12 to 18 hours, but when cattle are driven long distances to points of shipment, and are then packed into cars to remain there from 50 to 100 hours, with imperfect feeding and no outside rest, the case is very different. If cars could be made so as to give the animals plenty of room to lie down, and at the same time be supplied with feed and water, without increasing the cost of carrying them, it would have been done long ago. "Palace" cattle cars were invented and patented a dozen years ago, with ample provision for making the cattle comfortable and saving them from the protracted misery which they now have to endure. One of these cars was 36 feet long and 9½ wide, which is 10 feet longer and 1 foot wider than stock cars usually are. It would carry 16 cattle of ordinary size and give them plenty of room, but no such cars are running on the roads now, because competition will not admit of it. No road is going to carry cattle in palace cars, packed in as loosely as hyenas and tigers in a traveling menagerie, while a rival road, by prodding and tail twisting, carries twice as many in the same number of cars of the common kind. The best car, from a shipper's and transporter's point of view, is one that will carry the greatest weight of Texas steers to the square foot without killing the steers before reaching their destination.

It is doubtful whether shippers and carriers want any better cars to lessen the miseries of the cattle, unless they will carry more cattle in less space than cars now do, and thus increase the profits of the business. In railway traffic the tendency is to carry more paying weight of all kinds of freight, and live stock is no exception. What is needed to put a stop to the cruelties incident to the transportation of cattle and the slaughtering of sick animals for food that are fit only for fertilizing purposes, is the enforcement of the existing law of Congress, with such additional provisions as may be required; or, in other words, the management and running of cattle trains should be subjected to more strict legal supervision than they now are.—*National Car-Builder*.

NEW TOP FOR COOKING STOVES AND RANGES.

The object of this improved stove top is to secure a more rapid heating of sad irons or other articles of similar character. The use of this improvement, which will be understood from the accompanying engraving, shortens the hours of labor over the ironing board, as the irons are more rapidly heated, while the fire need not be forced to the same extent as when the irons are heated upon the stove top. Time is first lost in heating the top plate to the required temperature, and when so heated, owing to the warping of the tops, the irons are not effectually heated, as unless they rest evenly upon the plate a current of air will be generated between the surfaces of the iron and plate which will carry away a portion of the heat which should have been transferred to the iron. In this improvement the



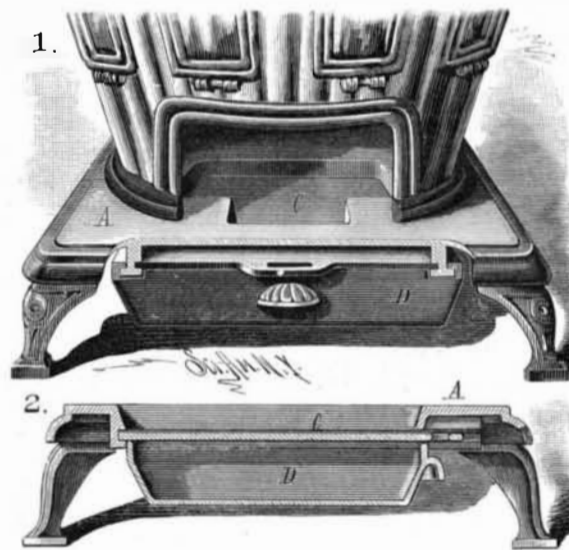
SHAABER'S TOP FOR COOKING STOVES AND RANGES.

plate is perforated in the form of the article to be heated, which rests upon a slight ledge; thus the heat impinges directly upon the exposed surface of the article. The improved cover plate is applicable to stoves already in use, and can be furnished as a separate detail to be used on ironing days.

This invention has been patented by Mr. Jacob Shaaber, of 825 Chestnut Street, Reading, Pa. We are informed that two extensive stove manufacturers of Reading are now getting ready to introduce it with their stoves.

IMPROVED STOVE.

The bottom plate, A, of the stove has a central opening, and has cast on its lower surface inverted T-shaped flanges on opposite sides of the opening. In the grooves thus formed move the sliding cut-off plate, C, and the ashpan, D, the side edges of which are bent in order to enter the outside grooves. Below the opening and back of its rear margin a stop bar is cast on the plate, to receive within it the back edge of the sliding plate; this bar is made sufficiently deep to also act as a stop to the ashpan. This fit of the sliding plate makes



WILLIAMSON'S IMPROVED STOVE.

a close undercover to the opening to prevent the escape of cinders, dust, or ashes when the ashpan is withdrawn. The pan is provided with a front handle, by which to move it, and the plate is also formed with a handle or loop piece arranged out of the way of the pan, to admit of the movement of the slide in or out without interfering with the pan. After the ashes have been dumped into the pan, the plate may be closed and the pan be removed subsequently at any time, without producing dust in the apartment and without risk of ashes or cinders falling from the stove to the floor.

This invention—patented by Mrs. Sarah A. H. Williamson, of Carson City, Nev.—is applicable to ranges as well as stoves, and when a grate is used for burning coal.

The Medical View of Roller Skating.

It seems as if America were peculiarly susceptible to epidemic influences of a mental kind. We hear of no other country so violently perturbed by "waves" of temperance crusading, religious revivals, velocipede crazes, pedestrianism, and, finally, rollerskating, upon which latter pastime the thoughts and feelings of three-fourths of the rising generation are at present centered. In intensity and extent, the roller skating mania has far exceeded all its predecessors, and it must be inferred, either that the psychological contagium is particularly strong, or that the susceptibility of young America to affective epidemic influences is increasing.

Modern scientists of the "Psychical Research" school are putting forward the theory of brain waves as a possibly potent element in the production of panic fears and epidemic fashions and feelings. The mind acts "exoneurally," we are told, and the vibrating brain cells of the enthusiastic roller skater communicate their rhythmical pulsations to the previously insensitive spectator. Whatever the mechanism, there is certainly at present a morbidly exaggerated passion for, and indulgence in, roller skating. And the question comes home to the physician, whether it is doing any physical or mental harm.

On the whole, we are inclined to take a rather lenient view of the present craze. Considerable inquiry has failed to elicit any facts showing that roller skating, temperately indulged in, does any harm to growing children, or produces any diseases and injuries peculiar to the sport. Severe sicknesses have been known to result from violent exercise in hot, ill ventilated rinks, and occasionally serious injuries are produced by falls and collisions. In proportion to the immense number of persons who have been engaged in propulsive divagations upon polished floors during the past winter, the pathological outcome has been small.—*The Medical Record*.

The Recent Earthquakes in Spain.

A number of interesting physical observations have been made on the recent earthquakes in Andalusia and the Azores. The shocks near Malago varied in destructive effects, according to the nature of the ground, says *Engineering*; buildings founded on sand at the borders of the Mediterranean Sea suffered in general less injury than houses built on rocks and at a higher level. The first shock was felt about 9 P.M. on December 25, 1884, the tremors being very violent and lasting, as well as exceedingly rapid. Then there was a stoppage for two or three seconds, followed by a trembling stronger and more rapid than before. Fortunately this did not last long, else every building would have been destroyed. During the night of the 25th of December, the shocks were continued from time to time at intervals of from 45 minutes to 80 minutes, and varied in strength, but were mostly feeble as compared with the first shocks.

Further shocks were felt until January 1, 1885, more of them occurring by night than by day, and the nocturnal ones being stronger than those of the day. The shocks were felt at Madrid, but they were feeble there. In fact, the severe shocks were felt over a belt of country bordering the Mediterranean, and 90 to 120 miles broad. By means of a large vessel of water, M. Germain observed that the shocks, except one, took place round an axis parallel to the borders of the sea, and cutting the north and south line at an angle of 74 degrees on the east side of the latter. Each shock was accompanied by a roaring sound like that of a distant storm; but the sea remained calm as usual.

Another observer states that great rocks were rolled down the slopes of the Sierra Alhama, and the captains of the vessels, the Isabel, bound for New York, and the Clementine, for Valencia, report that the earthquake was felt at sea by the Isabel in longitude 28° 51' W., latitude 29° 55' N.; and on December 18 by the Clementine, in longitude 12° 30' W., and latitude 33° N., off San Fernando on December 23. Moreover, shocks were felt at Terceira, in the Azores Islands, at 2:30 A.M. on the 22d of December, but without doing any damage.

Teaching the Deaf to Talk.

Mr. N. F. Whipple, principal of the Oral School of Deaf Mutes, at Mystic, Conn., recently explained in the Plymouth lecture room, Brooklyn, the system of teaching articulation to the deaf and dumb. He introduced on the platform a boy who had been deaf from his birth, and who repeated the Lord's Prayer loud enough to be heard in the rear of the room. The boy spoke with much distinctness. Long and difficult words suggested by the audience were promptly interpreted by another deaf boy as they fell from Mr. Whipple's lips.

Enoch Whipple, over sixty years of age, who was the first deaf mute taught to speak in this country, read a chapter from Jeremiah, and related how in early childhood he had learned the power of speech from watching the movements of his father's lips.

As a test of the length to which the system has been carried, Mr. Whipple had the lights lowered and had a deaf boy interpret his utterances by watching the shadows made on the wall by his lips.