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Soda Springs in the Desert.

"The Alta California" says:—"The party engaged in the survey of public lands, under Mr. Pool, found at a point about fifty miles east of San Felipe, in San Diego Co., a singular collection of fountains or springs of soda water, situated in a sandy plain or depression of the surface of the desert. The spring is in a mound of symmetrical shape, tapering like a sugar loaf, in the center of the top of which is a hole, unfathomable, containing the carbonated beverage fresh from some natural laboratory below. Some of these mounds are six feet high, and clothed with a green and luxuriant coat of grass, while others are shaped like an inverted bowl, and fringed by a growth of cane. The water is described as having the same sparkling and effervescing quality as that ordinarily sold by apothecaries, and was drunk with avidity by both men and animals belonging to the party. When impregnated with acid of any kind, it produced instant effervescence, and in that form is peculiarly refreshing as a drink. Some of it has been brought in, in order to be chemically tested, with a view to make the discovery of some practical utility."

Tunneling Chicago River.

A committee of the Chicago Council have resolved to accept the plan of tunneling the Chicago River as proposed by the American Sub-Marine Tunnel Company of New York. It is to be finished by May 1st, 1855, made of cast-iron entrances on a grade not exceeding one foot fall in nine. The plan to be two wagon tracks, each ten feet wide, and two foot ways, each four feet wide, the former eleven feet and the latter seven feet. The top of the tunnel to be not less than twelve feet below low water mark for one hundred and fifty feet in the center of the river.

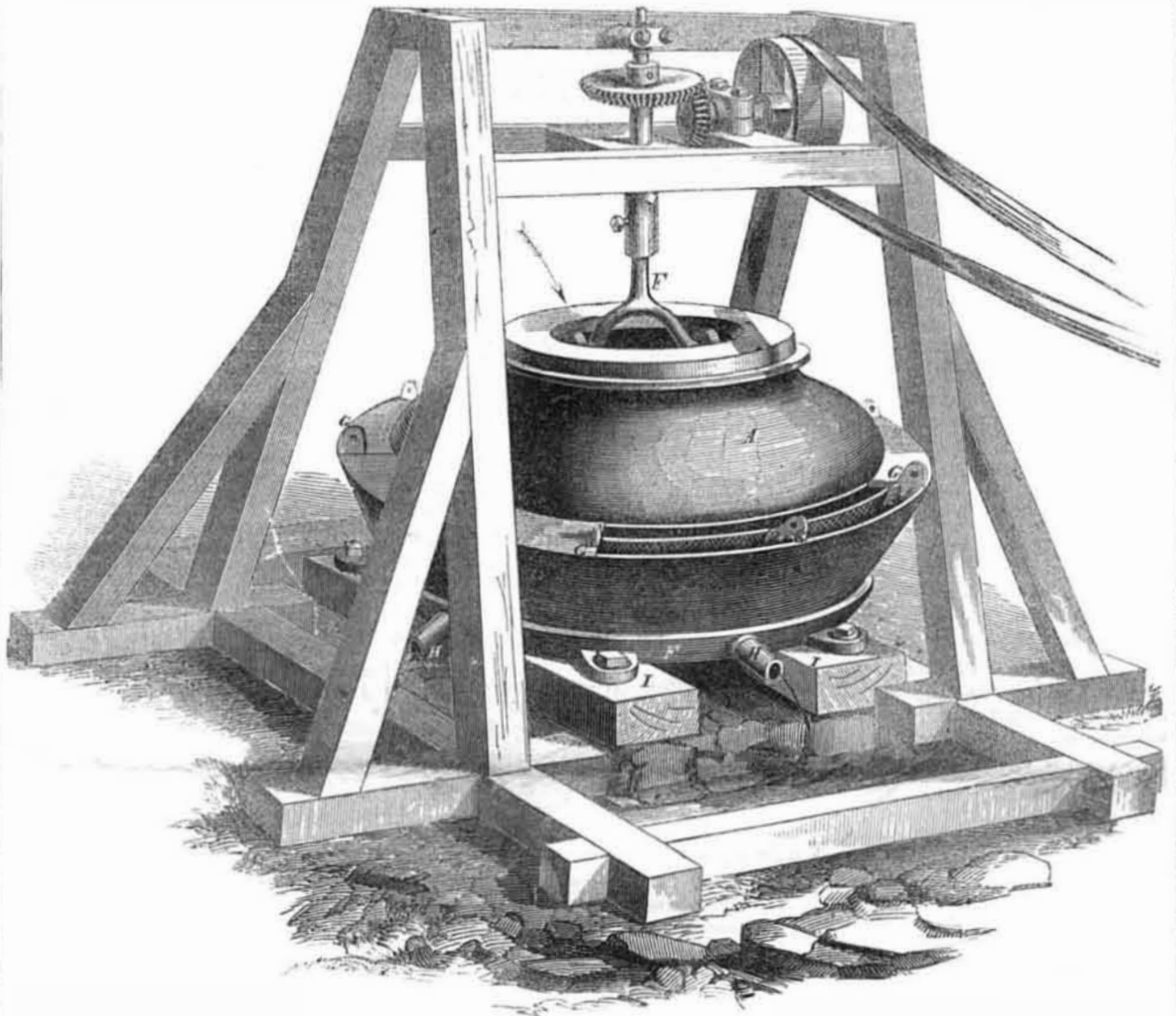
Brandy in Climbing Mountains.

A recent writer says: "It is astonishing the effect produced by spirits upon the persons of even the strongest constitution, when indulged in at an elevation of 10,000 or 12,000 feet. At 19,000 feet it is perfectly dangerous to take any quantity of raw spirits, as even a half a glass of brandy produces intoxication. All hill travelers drink nothing but hot tea; for traveling up the mountains and down valleys, across bridges of very questionable security, requires a firm and very steady nerve, which it is impossible for those who indulge freely in the use of spirits to retain long in the snowy regions."

How to make Deaf Persons Hear the Piano-forte.

The instrument should be opened, and a rod of pine wood provided about half an inch thick, three quarters wide, and long enough to reach from the bridge of the sounding board to the mouth of the deaf person. If one end of this rod be made to rest firmly on the bridge, and the other end be held between the teeth, the softest sounds will be distinctly communicated. —[Musical Transcript.

IMPROVED QUARTZ CRUSHING MACHINE. ---Figure 1.



The annexed engravings are a perspective view, figure 1, and a vertical section, figure 2, of Cochran's Quartz Crushing Machine, which was illustrated on page 384, Vol. 7, "Scientific American." The difference between the former and the present engravings exhibit a great change and improvement in some of the details of this machine.

The machinery is placed within a strong frame, and the basins rests on the sleepers, I I; E is the outside bottom basin, and K its sides, there being a space between the inside basin, where the quartz is crushed, and the outside shell; G is an adjustable screen between them, through which the ground material must pass to be discharged through the spouts, H H; C

pulley, as shown. The lower basin is stationary, but by the revolving cap, A, the balls are rotated in their channel, D, crushing and pulverizing the quartz to fine dust. In the old machine, the top basin or cap was driven by a band passing around it, and not by a vertical shaft as in this one.

The patent has been purchased by a company, and is now called the "Eureka Crushing Machine." Every difficulty in the machine as formerly constructed, are said to be obviated in this one. One of these machines is in operation at the "Belzona Mine," Va., and another in Georgia, at the "Columbia Mines," both doing good work, the former having crushed 805 tons of quartz in 364 hours, and the latter 2,000. Sir Henry Huntly has one at the "Anglo-California Mines," Cal., which also does well.

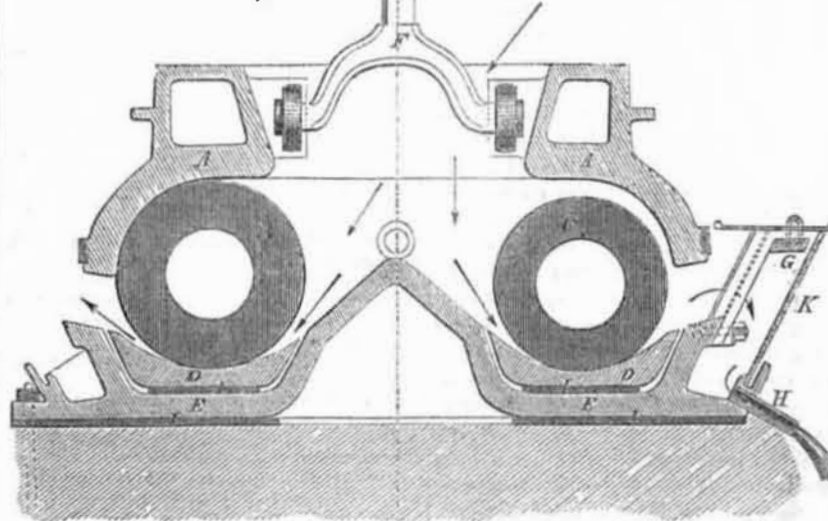
The Company say of this machine: "Everything is now so simplified that with the drawings furnished by the Company, any one can put them in operation, no oil is used about this machine whatever, and it is perfectly water tight without needing any packing, and will take care of itself when running, without any assistance, and keeps itself perfectly clear, and delivers all chips and grass, without crushing it."

More information may be obtained by letter or otherwise, at No. 32 Cliff street, New York City.

Indian Meal in Ireland.

The "Belfast (Ireland) Mercury," says, the extent to which the sale of Indian meal is carried on through the rural districts, seems really wonderful. At one steam mill the average quantity turned out, for the past couple of months, exceeded fifty tons per week.

Fig. 2



B are the grinding balls; they run in the channel, D, of the inner basin and the ground or crushed matter is represented as being discharged by the arrows. The quartz is fed into the machine at the top as shown by the de-

scending arrows. A is the cover or inverted basin; it has lugs in it for the reception of the arms, F, of the driving shaft which has a bevel wheel on its upper part that receives motion through a pinion driven by band and