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ACTION OF SEWER GAS ON LEAD, ETC.

The sanitary inspector of Dundee, Scotland, Mr. T. Kinneir, has watched the effect of the gas on portions of the zinc eaves of buildings where it was striking on the under part, and found, in the course of a couple of years or so, pretty large holes eaten completely through, showing that material could not longer withstand the effect of the gas. Lead is, of course, more durable than zinc, but the difference is only a question of degree, as shown by the fact, in not a few of the water-closets repaired by the officers of the department during the year, small apertures were found in the main vertical lead pipe, and in the cross or horizontal one leading from it to the trap of the closet various perforations were found on the top, indicating clearly the operation of foul air from the drain. Lead traps and soil pipes from water-closets, baths, and fixed basins are all subject to wear and tear; but the traps, being burdened with the additional strain of barring the passage of sewer gas, do their work less efficiently, and for a much shorter period, than they are generally credited with, hence the necessity for proper ventilation and occasional inspection.—English Paper.

The Sanitary Board of this city long since made the same discovery as to the corroding effects of sewer gas as reported above.

Not long ago, under the direction of an engineer attached to our Sanitary Board, we had occasion to have a lead waste pipe leading from the third story to the cellar of our residence examined, for the purpose of detecting the source of a slight odor. This pipe connected with the main pipe, which extended to the sewer. On taking down the waste pipe, we found it in many places honeycombed, and in others it had become so thin as to be compressible between the thumb and finger. This was probably due to the presence of carbonic acid gas in the sewage, a gas which is almost always present in drain pipes. Carbonic acid gas corrodes lead very rapidly; hence the use of lead as a material for the main drain pipes of dwellings has of late years been generally abandoned, and iron pipes substituted. But even iron is not wholly free from objection, though it is considered safer than lead.

Occupants of city houses which have been built some time should not neglect to have the plumbing work in their homes examined and a remedy applied at once to any discovered defect. At this time of year diphtheria, scarlet fever, measles, and kindred diseases are most apt to prevail, and the cause may frequently be traced to defective traps, loose joints, and worn out pipes. Every pipe leading into a sewer or cesspool should be ventilated. One very common method of doing this is to run a pipe from the main or discharge pipe up through the house above the roof.

THE TYPICAL YANKEE.

In a recent speech at a society meeting in Michigan, the Hon. T. W. Palmer said that the Yankee's idea of life is business, and business with him means activity rightly directed: "Firm in intent, but flexible as to methods and fertile in resource, the typical Yankee of to-day is the man who, more than another, puts himself in accord with natural laws."

This definition admirably characterizes the typical man of the nineteenth century, regardless of race. The world over, men of this character are giving new power, a broader scope, and a breadth of freedom to life, such as the world has never dreamed of before. And if such men abound in America more than elsewhere—so much more as to justify our calling the type pre-eminently Yankee—it is simply because of the large liberty America allows from the political, social, and ecclesiastical restraints which, in other lands, keep men from developing the power there is in them.

Not only does the typical Yankee seek to put himself in accord with natural laws, but he is persistent in seeking to widen his grasp of those laws, to make his knowledge real, and to set to practical work the forces which nature puts at the service of those who know how to use them. The freest of all men from superstition, the Yankee neither fears nor reveres the unexplained; and he has as little respect for the old simply because it is old. The secrets of nature are his game; he is bound to capture them. No custom, no alleged truth is sacred in his eyes because of its antiquity. His allegiance goes with utility. If the new is better than the old, that is reason enough for embracing it. His ideal is progress; he works for it, forces it, enjoys it. His genius is universal because it is unrestrained, fearless, practical; and American life everywhere shows the power and effect of it.

A BURIED RACE IN KANSAS.

It is well known that the wrought stone implements found in the ancient river gravels of California prove conclusively that during or before the glacial period the Pacific coast was inhabited by man. In a report on recent archaeological explorations in Kansas, Judge E. P. West, of that State, presents a large amount of evidence to show that at an equally remote period that region was peopled by a race compared with which the mound builders must be accounted modern.

The geology of the region is simple. Prior to the drift epoch the river channels were deeper than now, and the river valleys were lower. Subsequently the valleys were filled by a lacustrine deposit of considerable depth. In or beneath this last deposit the remains of an extinct race occur.

Such remains have been found at various depths in seven different counties along or near the Kansas Pacific Railroad, namely Douglass, Pottawatomie, Riley, Dickinson, Marion, Ellsworth, and Lincoln counties. With one exception the remains have all been found on the second bottom or terrace

of streams, and consist of stone implements, pottery, human bones, and bone implements. In most cases they were struck in digging wells, at a depth of from twenty to thirty feet below the surface. In view of the fact that there is not more than one well to the square mile in the counties named, and the area of a well forms but a very small fraction of a square mile, Judge West thinks the evidence already obtained not only sufficient to prove the former existence of the buried race, but to prove that they were very numerous. We can hardly assume that chance has directed the digging of wells only where human remains are buried.

Whether the race existed before the glacial epoch or immediately after it is too early to determine. Judge West is inclined to fix their time of occupancy as after the glacial epoch and prior to the deposition of the Loess. In calling upon the local newspapers of Kansas to lay the facts before the people and urging the propriety of saving such remains when found, and noting carefully the conditions under which they occur, the judge says:

"Here we have a buried race enwrapped in a profound and startling mystery—a race whose appearance and exit in the world's drama precede stupendous geological changes marking our continent, and which perhaps required hundreds of thousands of years in their accomplishment. The prize is no less than determining when this mysterious people lived, how they lived, when they passed out of existence, and why they became extinct."

TAKING DOWN CLEOPATRA'S NEEDLE.

The Herald's correspondent at Alexandria, Egypt, writing December 13, reports the safe removal of Cleopatra's Needle from the pedestal which had supported it for nearly nineteen hundred years. This pedestal is of the same kind of granite as the obelisk itself, and must have been brought from the quarry at Syene, near the first cataract of the Nile. It is remarkable that the existence of this pedestal, measuring nine feet high and six feet square and weighing forty-three tons, was unknown previous to the present excavations. The obelisk was formally ceded to Commander Gorringe and Lieutenant Schweder by the Governor of Alexandria, on October 22. By the 10th of November the earth was removed to some twenty feet below the present level of the soil, and the base of the obelisk and the large pedestal resting on three marble slabs were made visible. The base of the Needle is rounded by age. It originally rested upon four bronze crabs, each about three feet long by one wide. One of these crabs was under each corner, firmly fixed to both obelisk and pedestal by two bronze bars an inch in diameter and over a foot in length. One of these bars, projecting perpendicularly from the back of the crab, is fitted into a hole in the base of the obelisk. The other bar, descending perpendicularly from the crab's belly, is fitted into a similar hole in the pedestal. Both of these bars were firmly soldered with lead.

Owing to the jamming of one of the claws with a projecting piece of the base of the pedestal much difficulty was experienced in lowering the shaft, but on the 6th the work was successfully accomplished. When overturned the obelisk rested on sections of a float, whence in due time the Needle would be shoved into the steamer intended to bring it to New York. The steamer purchased for this purpose was the Dessouk, of 1,600 tons register. The Dessouk was built in England and bought by the Egyptian Government while on the stocks. She is not fast, but is very strongly built.

The Commerce of New York.

The official record of arrivals of vessels at this port last year was 21,421, against 19,110 in 1878, and 19,536 in 1877, the increase being in the trade with foreign and eastern domestic ports. The arrivals from foreign ports were 8,077, against 7,348 in 1878, and 6,244 in 1877. The arrivals from domestic ports were 13,344, against 11,762 in 1878, and 13,112 in 1877. Of the arrivals from foreign ports, 1,591 were steamers, 1,096 being British, 188 American, 129 German, 59 Belgian, 40 French, 35 Dutch, 29 Danish, 10 Spanish, 3 Italian, and 1 Russian.

In 1878 the United States led in the number of sailing vessels from foreign ports; in 1879 Great Britain had the larger number, namely, 2,804 against 2,414 of United States register. Norway was third, with 1,139, of which 1,000 were barks. Then follow Italy with 560 vessels, Germany with 459, and Austria with 236, 216 of which are barks. Then come France, Sweden, Holland, Belgium, with 59 steamers and two other vessels; Spain, Denmark, Hayti, Portugal, Russia, Venezuela, Costa Rica, Mexico, the Argentine Republic, Nicaragua, and Brazil, in that order, the number of arrivals credited to each ranging from 82 French vessels to 1 of the last two nationalities. Two-thirds of the steamers were British; one-third of the ships American, and another third British; one-third of the barks Norwegian, one-quarter British, and one-eighth American, and another eighth Italian; nearly half the brigs were American, as were three-quarters of the schooners.

General Wool's Monument.

The largest obelisk ever quarried in the United States was recently set up in Oakwood Cemetery, near Troy, N. Y., as a monument to General John E. Wool and his wife. The obelisk is 60 feet high, weighs 100 tons, and is mounted upon a pedestal comprising three plain bases, a moulded base, a die and neck mould. The lower base, 17 feet 6 inches square and 2 feet thick. This and the two succeeding