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## CREMATION IN THE HOUSEHOLD.

For several weeks past, the daily papers of this city, how ever diverse their views on the currency, the tariff, and the next election, have exhibited a delightful unanimity in condemning the method employed in filling in the Harlem flats. Indeed, they have made such an outcry that at last the Board of Health have shown a little interest in the matter, and have applied disinfectants in some of the worst localities.

Our readers may depend upon it that the nuisance created by using garbage for filling in sunken lands was one of unusual magnitude, as it united all the daily papers in condemnation. As a general thing, when one of the great dailies of this city makes a discovery of local corruption or incompetence, all the other papers hold aloof and have nothing to say about it. It is only when the discovery is one of very great importance that the other papers consent to take part in its discussion and thorough development. For instance, if a contractor, in filling a tract consisting of three or four lots, should skillfully mingle a quantity of garbage with the earth and ashes, it must be difficult to excite much popular indignation at his conduct. It is, of course, a happy circumstance that the daily press is independent enough to endeavor to correct great local abuses, and anything but pleasant to find that the Board of Health need to be told by the papers that great abuses need correction. It is a reasonable inference, from the foregoing, that the Board of Health do not correct similar nuisances when they do not excite public attention; so that probably there are hundreds of lots, all through the city, in which the filling up to grade has been done with a very miscellaneous description of materials. It is pretty evident, also, that contractors, if left to themselves, can scarcely be trusted to make a thorough separation of ashes and garbage, in selecting the materials for grading. So that, as long as ashes and garbage are placed on the sidewalks by families, it is probable that they will be transferred to sunken lots, to form the foundations not only of future residences, but of discomfort, disease, and death. What, then, is to be done? The answer seems obvious. The garbage causes the trouble, and will continue to cause it, as long as it is put out by families for removal; cut off the supply, or allow no garbage to be deposited on the sidewalks. Such an ordinance can readily be enforced by the inspection of the police; and we believe the Board of Health have ample power to make a regulation of this character. But if the garbage is not carried off, what becomes of it, it will be asked. And this brings us to the subject indicated by the title of our article. As fast as the garbage is formed, throw it into the fire, and let it be consumed. A famous housekeeper said to us the other day: "My cook burns up everything that is not eaten or given to the poor, so that nothing is put into my ash can except ashes and broken crockery." We had not given much attention to the subject before; but we discovered, by inquiry and experiment, that the statement was perfectly correct, and that it was always easy and often profitable, while it is certainly desirable, to deposit in the ash can, so far as the garbage is concerned, nothing but the ashes of the garbage.

## TAINTED MEAT.

Thirty-nine tons of meat were condemned as unfit for food in this city during the year 1874; and it is probable that, under the somewhat lax system of inspection which here prevails, this amount was but small compared with that which found its way from the hands of the retailing butchers, principally to the poorer classes. While it is known that certain races of people habitually eat meat in a high state of putrefaction, with impunity so far as immediate deleterious effects are concerned, it is well settled that the individuals are, as a rule, weak and possessed of slight power to resist disease. The weight of authority points to the fact that bad meat, no matter in what form consumed, is productive of illness, the mild symptoms of which are lassitude, headache, dullness, indigestion, and loss of appetite; while severe attacks are characterized by vomiting and typhoidal indications.

In a recent English health report, it is asserted that, although it may be difficult to prove the fact by actual cases, there can be no doubt that unwholesome meat is one cause among many of the poverty of blood and intractable maladies of the poor, who flock to the dispensaries during the hot weather. Especially in summer is it a cause of diarrhoea; and instances are cited of both typhus and typhoid fevers being traced to its effects. In appearance, tainted meat is generally of a pinkish hue and more than ordinarily slippery to the touch; and the fat is very soft and yellow. In advanced stages, the odor is disagreeably apparent. Shrinkage in cooking, often to the extent of twenty-five per cent, is also another indication.

We have little doubt but that a large percentage of the bad meat sold in New York city is due to the filthy state of many of the slaughterhouses. We recently visited two or three representative shambles, located directly in rear of a number of first class dwellings, and in close proximity to a thickly populated tenement district. The odors which we traced to them were foul and sickening, and pervaded the vicinity over a considerable radius, almost constantly. Unless there be absolute cleanliness in such places (which, in fact, should not be allowed to exist near residences of any kind), the putrid emanations are sufficient in themselves to taint the meat kept in them, or even exposed for sale in the neighborhood. A late report of the Medical Officer of the Privy Council of Great Britain especially dwells upon the fact, and also states that even a low temperature will not serve as a protection to the meat against contamination.

Along the rivers on both sides of this city there are several slaughterhouses which form a standing nuisance as well as a source of danger to the residents of the neighborhood; and why the private interests of their owners should be allowed to override the considerations of sanitary welfare of the community—a fact indicated by the apparently flourishing condition of the establishments, and their permanence, despite repeated complaints—is a question which the public looks to the health authorities to answer. At all events, the probable effect of such places, upon the meat prepared in them, is worth serious consideration by the owners of the cattle, as well as by consumers generally. If the latter would take the trouble to find out where their butchers obtained supplies, and would refuse to purchase meat killed in shambles known to be unclean or ill smelling, and if the former would refuse to send stock to such slaughterhouses, remedies both for tainted meat and bad odors would soon be forthcoming.

## RIGHTS OF EMPLOYER AND EMPLOYED IN RESPECT TO A NEW INVENTION.

In the case of the Evans Paper Collar Patent, reported in another column of this issue, the Supreme Court of the United States decides as follows in respect to the rights of employers and employees, touching the proprietorship of new inventions:

Where a person has discovered a new and useful principle in a machine, manufacture, or composition of matter, he may employ other persons to assist in carrying out that principle; and if they, in the course of experiments arising from that employment, make discoveries auxiliary to the plan and preconceived design of the employer, such suggested improvements are, in general, to be regarded as the property of the party who discovered the original principle, and they may be embodied in his patent as part of his invention. Doubt upon that subject cannot be entertained.

But persons employed as such as employers are entitled to their own independent inventions: and if the suggestions communicated constitute the whole substance of the improvement, the rule is otherwise, and the patent, if granted to the employer, is invalid, because the real invention or discovery belongs to the person who made the suggestions.

## THE KEELY MOTOR DECEPTION.

Newspapers, from all parts of the country, come to us daily, laden with long accounts of the wonderful things that are to be expected from the astounding Keely motor discovery, which is to supersede steam power, hot air, electricity, gravitation, chemical affinity, and other laws of Nature. This is not the first time that the readers of the SCIENTIFIC AMERICAN have seen all these things done—on paper. Nor is it the first time that learned professors, like Rand, experienced civil engineers like Haswell, or good practical mechanics like Sergeant, Wood, and Boeckel, have been deluded into the support of strange deceptions like Keely's. But these gentlemen have only temporarily lost their common sense on this one subject. It will return to them again in due time.

In fact, there are indications that Professor Haswell is already recovering, and the others, no doubt, will soon fol-

low. Only those who invest their money will experience permanent loss.

In our paper for May 2, 1874, in an article on the Keely motor, we printed the following extract from the company's pamphlet:

"The following named gentlemen have witnessed the exhibition of the above tests, and may be referred to for the correctness of this statement: Charles H. Haswell, civil and marine engineer, New York city, and formerly Engineer-in-Chief, U. S. N.; William W. Wood, Chief of Bureau of Steam Engineering, U. S. N., Washington, D. C.; S. Parrish, gas engineer, Jersey City, N. J.; Joseph Patten, engineer, Elizabeth, N. J.; F. Glocker, machinist, Philadelphia, Pa.; William Boeckel, machinist, Philadelphia, Pa.

In connection with the foregoing statement, a professional report is given in the pamphlet, by Mr. Haswell, one of the referees mentioned above. He certifies, as the results of two actual working trials of the invention, as follows:

"Mr. Keely developed a cold vapor of a density that enabled it, when admitted to a cylinder having a piston  $1\frac{1}{8}$  inches in diameter, to raise a weight of 150 lbs. suspended from a compound lever, connected as 1 to 42, which, with the weight of the lever and the friction due to the absence of a knife-edge or rotating joint, was fully equal to an energy of 7,800 lbs. per square inch."

Mr. Haswell was, at that time, professionally employed to test and report upon the new motor, and did so, as above reported. But the above is only a small portion of his report, which goes into the other details of the motor, not necessary here to mention, because they are based on statements made to him by the inventor. The portion given above, however, was the result of his personal observations in 1874. Mr. Haswell, having allowed his report of 1874 to stand, together with our comments thereon, without the least objection, for over a year, before the public, at last begins to see the absurdity of the matter, and now sends us, June, 1875, the following communication:

To the Editor of the Scientific American:

I am advised that, in the last number of your paper (June 26, 1875), I am referred to as having, with others, endorsed the alleged capacity of the invention of Mr. J. W. Keely, known as the Keely motor.

If you will point out wherein I have ever expressed an opinion of the integrity of the claims of Mr. Keely, of the foundation of which I am wholly uninformed, I shall be interested to learn of it. Respectfully,

CHAS. H. HASWELL.

New York, June 17, 1875.

He also publishes the following, in the New York Sun:

## MR. HASWELL ON THE KEELY MOTOR.

To the Editor of the Sun—SIR: In an article in your issue of this morning you imply that I have endorsed the integrity of the Keely motor. As I am wholly uninformed of the foundation upon which Mr. Keely bases his claims, I have never expressed an opinion thereon. I am, respectfully,  
June 17, 1875.  
CHAS. H. HASWELL.

The republication above, from Mr. Haswell's certificate, will, we presume, give him the information he now desires.

## THE SEARCH FOR THE POLE.

The British Polar Expedition has sailed from Portsmouth amid salvos of artillery, cheers from congregated thousands, and other grand displays of official and popular enthusiasm. Until the vessels reach Disco, when Mr. Clement Markham will leave the party and return to England with a report of the prospects and general probabilities of success, as far as can be gathered from appearances at that far northern point, we shall have no tidings; and after that time, until the lapse of the three years allowed to the enterprise, the fortunes, good or bad, of the expedition will likely remain unknown. There is great hope, this time, as to the ultimate success of the attempt. Never before have ships started on any voyage of discovery so completely fitted out with everything which Science could suggest or experience counsel as these two quondam whalers; nor has any previous expedition been projected under that rigid military discipline for the lack of which Hall failed, and which, in the present case, will be maintained by officers already thoroughly conversant with the nature of the task before them, and the causes which have led to its non-accomplishment by their predecessors.

The Alert and Discovery are to proceed to Smith's Sound, taking the route by which Hall reached the furthest point of north latitude yet attained. It may easily be argued that, if the last mentioned commander, in a vessel wretchedly prepared for the work, could reach 82° 16' N. latitude, and then be foiled in further attempts to push onward, not through any fault of his ship, but through dissensions in his crew, there is every reasonable probability that the English ships will have no serious obstacles to encounter in steadily advancing until the open sea, which the peculiar glistening haze (seen above the ice mountains by Dr. Kane's mate from the masthead) indicates, is reached. Then three millions of square miles of water, possibly a frozen continent, unvisited by living things from the lower world, save by the birds which are known to emigrate to the northward of any point yet attained by man, lie open to exploration; and the explorers will doubtless traverse that now unknown region until they reach the end of their journey upon the "spot where the sun's altitude is equal to its declination, and where bearings must be obtained by reference to time and not to the magnet."

Then what? Science is rather vague in her answer, for she relies more upon entirely new discoveries being made than upon verifications of advanced theories. Mr. Clement Markham sums up about all that Science has to expect from