

## VON KEMPELEN AND HIS DISCOVERY

After the very minute and elaborate paper by Arago, to say nothing of the summary in ‘Silliman’s Journal,’ with the detailed statement just published by Lieutenant Maury, it will not be supposed, of course, that in offering a few hurried remarks in reference to Von Kempelen’s discovery, I have any design to look at the subject in a scientific point of view. My object is simply, in the first place, to say a few words of Von Kempelen himself (with whom, some years ago, I had the honor of a slight personal acquaintance), since every thing which concerns him must necessarily, at this moment, be of interest; and, in the second place, to look in a general way, and speculatively, at the results of the discovery.

It may be as well, however, to premise the cursory observations which I have to offer, by denying, very decidedly, what seems to be a general impression (gleaned, as usual in a case of this kind, from the newspapers), viz.: that this discovery, astounding as it unquestionably is, is unanticipated.

By reference to the ‘Diary of Sir Humphrey Davy’ (Cottle and Munroe, London, pp. 150), it will be seen at pp. 53 and 82, that this illustrious chemist had not only conceived the idea now in question, but had actually made no inconsiderable progress, experimentally, in the very identical analysis now so triumphantly brought to an issue by Von Kempelen, who although he makes not the slightest allusion to it, is, without doubt (I say it unhesitatingly, and can prove it, if required), indebted to the ‘Diary’ for at least the first hint of his own undertaking.

The paragraph from the ‘Courier and Enquirer,’ which is now going the rounds of the press, and which purports to claim the invention for a Mr. Kissam, of Brunswick, Maine, appears to me, I confess, a little apocryphal, for several reasons; although there is nothing either impossible or very improbable in the statement made. I need not go into details. My opinion of the paragraph is founded principally upon its manner. It does not look true. Persons who are narrating facts, are seldom so particular as Mr. Kissam seems to be, about day and date and precise location. Besides, if Mr. Kissam actually did come upon the discovery he says he did, at the period designated—nearly eight years ago—how happens it that he took no steps, on the instant, to reap the immense benefits which the merest bumpkin must have known would have resulted to him individually, if not to the world at large, from the discovery? It seems to me quite incredible that any man of common understanding could have discovered what Mr. Kissam says he did, and yet have subsequently acted so like a baby—so like an owl—as Mr. Kissam admits that he did. By-the-way, who is Mr. Kissam? and is not the whole paragraph in the ‘Courier and Enquirer’ a fabrication got up to ‘make a talk’? It must be confessed that it has an amazingly moon-hoaxy-air. Very little dependence is to be placed upon it, in my humble opinion; and if I were not well aware, from experience, how very easily men of science are mystified, on points out of their usual range of inquiry, I should be profoundly astonished at finding so eminent a chemist as Professor Draper, discussing Mr. Kissam’s (or is it Mr. Quizzem’s?) pretensions to the discovery, in so serious a tone.

But to return to the ‘Diary’ of Sir Humphrey Davy. This pamphlet was not designed for the public eye, even upon the decease of the writer, as any person at all conversant with authorship may satisfy himself at once by the slightest inspection of the style. At page 13, for example, near the middle, we read, in reference to his researches about the protoxide of azote: ‘In less than half a minute the respiration being continued, diminished gradually and were succeeded by analogous to gentle pressure on all the muscles.’ That the respiration was not ‘diminished,’ is not only clear by the subsequent context, but by the use of the plural, ‘were.’ The sentence, no doubt, was thus intended: ‘In less than half a minute, the respiration [being continued, these feelings] diminished gradually, and were succeeded by [a sensation] analogous to gentle pressure on all the muscles.’ A hundred similar instances go to show that the MS. so inconsiderately published, was merely a rough note-book, meant only for the writer’s own eye, but an inspection of the pamphlet will convince almost any thinking person of the truth of my suggestion. The fact is, Sir Humphrey Davy was about the last man in the world to commit himself on scientific topics. Not only had he a more than ordinary dislike to quackery, but he was morbidly afraid of appearing empirical; so that, however fully he might have been convinced that he was on the right track in the matter now in question, he would never have spoken out, until he had every thing ready for the most practical demonstration. I verily believe that his last moments would have been rendered wretched, could he have suspected that his wishes in regard to burning this ‘Diary’ (full of crude speculations) would have been unattended to; as, it seems, they were. I say ‘his wishes,’ for that he meant to include this note-book among the miscellaneous papers directed ‘to be burnt,’ I think there can be no manner of doubt. Whether it escaped the flames by good fortune or by bad, yet remains to be seen. That the passages quoted above, with the other similar ones referred to, gave Von Kempelen the hint, I do not in the slightest degree question; but I repeat, it yet remains to be seen whether this momentous discovery itself (momentous under any circumstances) will be of service or disservice to mankind at large. That Von Kempelen and his immediate friends will reap a rich harvest, it would be folly to doubt for a moment. They will scarcely be so weak as not to ‘realize,’ in time, by large purchases of houses and land, with other property of intrinsic value.

In the brief account of Von Kempelen which appeared in the ‘Home Journal,’ and has since been extensively copied, several misapprehensions of the German original seem to have been made by the translator, who professes to have taken the passage from a late number of the Presburg ‘Schnellpost.’ ‘Viele’ has evidently been misconceived (as it often is), and what the translator renders by ‘sorrows,’ is probably ‘lieden,’ which, in its true version, ‘sufferings,’ would give a totally different complexion to the whole account; but, of course, much of this is merely guess, on my part.

Von Kempelen, however, is by no means ‘a misanthrope,’ in appearance, at least, whatever he may be in fact. My acquaintance with him was casual altogether; and I am scarcely warranted in saying that I know him at all; but to have seen and conversed with a man of so *prodigious* a notoriety as he has attained, or *will* attain in a few days, is not a small matter, as times go.

“The Literary World” speaks of him, confidently, as a native of Presburg (misled, perhaps, by the account in “The Home Journal”) but I am pleased in being able to state *positively*, since I have it from his own lips, that he was born in Utica, in the State

of New York, although both his parents, I believe, are of Presburg descent. The family is connected, in some way, with Maelzel, of Automaton-chess-player memory. In person, he is short and stout, with large, *fat*, blue eyes, sandy hair and whiskers, a wide but pleasing mouth, fine teeth, and I think a Roman nose. There is some defect in one of his feet. His address is frank, and his whole manner noticeable for bonhomie. Altogether, he looks, speaks, and acts as little like ‘a misanthrope’ as any man I ever saw. We were fellow-sojourners for a week about six years ago, at Earl’s Hotel, in Providence, Rhode Island; and I presume that I conversed with him, at various times, for some three or four hours altogether. His principal topics were those of the day; and nothing that fell from him led me to suspect his scientific attainments. He left the hotel before me, intending to go to New York, and thence to Bremen; it was in the latter city that his great discovery was first made public; or, rather, it was there that he was first suspected of having made it. This is about all that I personally know of the now immortal Von Kempelen; but I have thought that even these few details would have interest for the public.

There can be little question that most of the marvellous rumors afloat about this affair are pure inventions, entitled to about as much credit as the story of Aladdin’s lamp; and yet, in a case of this kind, as in the case of the discoveries in California, it is clear that the truth may be stranger than fiction. The following anecdote, at least, is so well authenticated, that we may receive it implicitly.

Von Kempelen had never been even tolerably well off during his residence at Bremen; and often, it was well known, he had been put to extreme shifts in order to raise trifling sums. When the great excitement occurred about the forgery on the house of Gutsmuth & Co., suspicion was directed toward Von Kempelen, on account of his having purchased a considerable property in Gasperitch Lane, and his refusing, when questioned, to explain how he became possessed of the purchase money. He was at length arrested, but nothing decisive appearing against him, was in the end set at liberty. The police, however, kept a strict watch upon his movements, and thus discovered that he left home frequently, taking always the same road, and invariably giving his watchers the slip in the neighborhood of that labyrinth of narrow and crooked passages known by the flash name of the ‘Dondergat.’ Finally, by dint of great perseverance, they traced him to a garret in an old house of seven stories, in an alley called Flatzplatz,—and, coming upon him suddenly, found him, as they imagined, in the midst of his counterfeiting operations. His agitation is represented as so excessive that the officers had not the slightest doubt of his guilt. After hand-cuffing him, they searched his room, or rather rooms, for it appears he occupied all the mansarde.

Opening into the garret where they caught him, was a closet, ten feet by eight, fitted up with some chemical apparatus, of which the object has not yet been ascertained. In one corner of the closet was a very small furnace, with a glowing fire in it, and on the fire a kind of duplicate crucible—two crucibles connected by a tube. One of these crucibles was nearly full of lead in a state of fusion, but not reaching up to the aperture of the tube, which was close to the brim. The other crucible had some liquid in it, which, as the officers entered, seemed to be furiously dissipating in vapor. They relate that, on finding himself taken, Kempelen seized the crucibles with both hands (which were encased in gloves that afterwards turned out to be asbestic), and threw the contents on the tiled floor. It was now that they hand-cuffed him; and before proceeding to ransack

the premises they searched his person, but nothing unusual was found about him, excepting a paper parcel, in his coat-pocket, containing what was afterward ascertained to be a mixture of antimony and some unknown substance, in nearly, but not quite, equal proportions. All attempts at analyzing the unknown substance have, so far, failed, but that it will ultimately be analyzed, is not to be doubted.

Passing out of the closet with their prisoner, the officers went through a sort of ante-chamber, in which nothing material was found, to the chemist's sleeping-room. They here rummaged some drawers and boxes, but discovered only a few papers, of no importance, and some good coin, silver and gold. At length, looking under the bed, they saw a large, common hair trunk, without hinges, hasp, or lock, and with the top lying carelessly across the bottom portion. Upon attempting to draw this trunk out from under the bed, they found that, with their united strength (there were three of them, all powerful men), they 'could not stir it one inch.' Much astonished at this, one of them crawled under the bed, and looking into the trunk, said:

'No wonder we couldn't move it—why it's full to the brim of old bits of brass!'

Putting his feet, now, against the wall so as to get a good purchase, and pushing with all his force, while his companions pulled with all theirs, the trunk, with much difficulty, was slid out from under the bed, and its contents examined. The supposed brass with which it was filled was all in small, smooth pieces, varying from the size of a pea to that of a dollar; but the pieces were irregular in shape, although more or less flat-looking, upon the whole, "very much as lead looks when thrown upon the ground in a molten state, and there suffered to grow cool." Now, not one of these officers for a moment suspected this metal to be anything *but* brass. The idea of its being *gold* never entered their brains, of course; how *could* such a wild fancy have entered it? And their astonishment may be well conceived, when the next day it became known, all over Bremen, that the "lot of brass" which they had carted so contemptuously to the police office, without putting themselves to the trouble of pocketing the smallest scrap, was not only gold—real gold—but gold far finer than any employed in coinage—gold, in fact, absolutely pure, virgin, without the slightest appreciable alloy.

I need not go over the details of Von Kempelen's confession (as far as it went) and release, for these are familiar to the public. That he has actually realized, in spirit and in effect, if not to the letter, the old chimaera of the philosopher's stone, no sane person is at liberty to doubt. The opinions of Arago are, of course, entitled to the greatest consideration; but he is by no means infallible; and what he says of bismuth, in his report to the Academy, must be taken *cum grano salis*. The simple truth is, that up to this period all analysis has failed; and until Von Kempelen chooses to let us have the key to his own published enigma, it is more than probable that the matter will remain, for years, in *statu quo*. All that as yet can fairly be said to be known is, that 'Pure gold can be made at will, and very readily from lead in connection with certain other substances, in kind and in proportions, unknown.'

Speculation, of course, is busy as to the immediate and ultimate results of this discovery—a discovery which few thinking persons will hesitate in referring to an increased interest in the matter of gold generally, by the late developments in California; and this reflection brings us inevitably to another—the exceeding inopportuneness of Von Kempelen's analysis. If many were prevented from adventuring to California, by

the mere apprehension that gold would so materially diminish in value, on account of its plentifullness in the mines there, as to render the speculation of going so far in search of it a doubtful one—what impression will be wrought now, upon the minds of those about to emigrate, and especially upon the minds of those actually in the mineral region, by the announcement of this astounding discovery of Von Kempelen? a discovery which declares, in so many words, that beyond its intrinsic worth for manufacturing purposes (whatever that worth may be), gold now is, or at least soon will be (for it cannot be supposed that Von Kempelen can long retain his secret), of no greater value than lead, and of far inferior value to silver. It is, indeed, exceedingly difficult to speculate prospectively upon the consequences of the discovery, but one thing may be positively maintained—that the announcement of the discovery six months ago would have had material influence in regard to the settlement of California.

In Europe, as yet, the most noticeable results have been a rise of two hundred per cent. in the price of lead, and nearly twenty-five per cent. that of silver.