

Scientific American.

NEW YORK, NOVEMBER, 22, 1856.

The Brutality of the Bar.

This is a subject which, though apparently foreign to our very general legitimate literary labors, is not really so; we are glad, however, that it is one of which we are seldom led to take cognizance. Our attention has been directed to it by the speech of Edw. N. Dickerson, the counsel for Sickles in the patent case described in our last number. This speech has been published in several of our daily papers, with the object, apparently, of showing the public a specimen of that eloquence which gained this famous case. We say, the *apparent object of its publication*, as none of the speeches of other counsel have been given to the public.

In reading this speech no one can fail to receive the impression that it is a ferocious personal attack on the defendant's principal witness—Horatio Allen, of the Novelty Works this city. He is held up not only as a very ignorant engineer, but as an engineering Charlatan; and it is insinuated, that the *Pacific*, and boldly charged that the *Arctic*, steamships were lost through "his willful ignorance" of marine engineering.

No one can now tell how the *Pacific* was lost—hat revelation must wait till the Day of Judgment; but it is said that the *Arctic* could have been kept afloat by her air pumps if they had been properly constructed. They were sixty inches in diameter and five feet stroke, but had ports, the speech says, "of only seven inches diameter, and that, had they been larger, the pumps were of sufficient capacity to have thrown out as much water in forty minutes as would have equalled the entire weight of the vessel." We do not know what the size of the *Arctic's* air pump ports were, but if these pumps were sufficient to have maintained the proper vacuum in the condensers, then they fulfilled their specific duties. We have never heard that they did not fulfil those conditions, and without evidence adduced to prove their inefficiency we consider the charge against Mr. Allen to be wanton. It is one of the most serious charges that possibly can be made against any man as it makes him responsible for that great calamity which cast such a gloom over our city, and which has caused so many to go mourning ever since, for "the beloved and lost." In recurring to the accounts given of that accident, at the time of its occurrence, we find that the vessel was driven forward, forcing water into the hole in her bow at the rate of about twelve miles per hour, or 1056 feet per minute, instead of using the pumps efficiently to discharge the water.—Surely Mr. Allen was not to blame for this. The question at issue was, "whether the valve motion on the steamboat *Metropolis* was an infringement of the Sickles' patent." The jury decided it was, and therefore we acquiesce in that decision, but the Court should not have allowed such attacks by counsel, all foreign to the case under consideration, for the purpose of impressing the jury.

It is not an uncommon custom for counselors to indulge in the grossest vituperation, and to perpetrate the grossest libels against witnesses, and be shielded in their conduct under the sanctity of the Court. Such conduct is sacrilege, and should be repressed. To gain their cause, *no matter how*, appears to be the most sacred object of their efforts, but we hold such conduct to be disgraceful in any man, and so does the public.

In reading many of the speeches of counselors before juries, we are of opinion that it would be far better for truth and justice sake if the evidence of the witnesses were simply read over to the jury by the Clerk of the Court, and their decision based upon it instead of being swayed by such appeals to their passions, as in the speech which has formed the subject of this article.

We have nothing to say of Mr. Dickerson, personally but we regard his speech as another among the many exhibitions of brutality too often displayed by those who occupy a high position in the legal profession.

Ethnology, or the Races of Men.

It appears to us that modern Ethnology is something like spiritualism; neither of them are new subjects, but as treated by their students they develop many new absurdities. A few years since the London *Times* stigmatized the Celtic race as being inferior to the Saxon, when Dr. McElheran, of Ireland, came to the defence of the former, and proved satisfactorily to himself and many others that the Celt was the model type of man, the superior race, and the Saxon a very inferior sort of mankind. The Dr., who has now made this city his residence, is an enthusiastic and learned ethnologist, and delivered a lecture on the subject on the 5th inst., before the Academy of Medicine in the chapel of the University. He had a large and learned audience, and his lecture was an able one, occupying two hours in delivery, and was well illustrated.

He contended for the unity of the human race, but also for the superiority of the Celtic as being the central type, with oval head and most perfect form as compared with the Goths and Kalmucks. He claimed the white Americans for Celts, and asserted that their heads were a long oval, like the Welsh, Irish, and Highland-Scots, while the Saxons and Germans had short, broad, distorted crania, like savages.

It is a positive fact that every race thinks itself superior to all others; and the doctor, being a Celt, views all crania through his own peculiar vision. An Anglo-Saxon boasts of his race as superior to all others, while the Celt considers himself the model man. This pride of race is as old as the hills, and just as absurd as it is old. What is a race? A people speaking a peculiar language and of a certain habitat. At one time, while the Egyptians were the dominant race, they considered themselves the model type of man. Then the Greeks became the most renowned of peoples, and considered themselves the model race, and all others as barbarians.—What is the Greek race now? A robber clan. Then came the Roman race, which subdued the Greek, and it was the model type in its day. The old Roman was noble, virtuous, and brave; a lover of rational freedom, a warrior and statesman. Well, this once model race, so noble and great, is now distinguished for hand-organs and monkeys—the grinders of penny music for the multitude. Thus it has been with the races of men during the past—the dominant one in its day always considering itself the model one.

At present the German believes the Teutonic to be the model race; the Englishman and American believe the Anglo-Saxon to be the model type; while the French and Irish boast of the Celt. The truth is, that virtue, bravery, and industry are the qualities which make a model man and a model race. These are the qualities of character, which in the history of the world, have elevated one race and nation above another. If such qualities were race peculiarities, then the nation first dominant would always have been dominant; the Egyptian would still have been the Prince of Men.

Flying.

An invention that would enable man to fly would be a capital thing. What a revolution it would cause in all sorts of traveling now practiced for conveying passengers. The steamboat and the railroad would then become mere baggage carriers, and their present dignity and functions as carriers of human freight would disappear beneath the overshadowing dignity of man skimming the blue azure above, and spurning rocks, trees, seas, and rivers, and rough and crooked roads on his journey. This subject has engaged the attention of many persons from time immemorial, even extending away back to the days of Grecian Mythology, when one of their semi-deities succeeded in the attempt, but as his wings were only fastened to his shoulders with wax, he foolishly, it is related, ascended too high, when the heat of the sun melted it, and down he dropped into the sea, and that was the last that was heard of him. In modern times not a few balloonists have really met with the same fate, though not from the same cause; but the many misadventures of old aerial navigators do not seem to have

discouraged others from pursuing the same field of delightful and elevated investigation. This shows us that the bravery of man in the present day is equal, if not superior, to man in any age, and at once knocks into *pi* the accusation which some writers have made of man's degeneracy in hardihood on account of modern civilization.

These remarks have been called forth by the great number of successful balloon excursions which have recently taken place in various parts of our country. On Wednesday last week Mons. Godard made an aerial excursion from Philadelphia with four passengers aboard, when he showed them what a balloon could do under skillful management. At Fellowship, nine miles from Philadelphia, his carpet-bag fell overboard, but he was determined not to lose it. He immediately opened the valve, and the balloon descended with much ease in the field of Amos Roberts, where it remained until a man was sent back for the lost property. While here a number of people collected, and invitations were quite numerous for the party to stop and take supper, but the shades of evening coming on, the voyagers were desirous of advancing and enjoying a ride by moonlight. They therefore mounted the balloon again, and away they soared gracefully over the country to Mount Holly, N.J., where they descended, all safe and sound.

Many improvements have, no doubt, been made in the art of ballooning during the past ten years, but it has not been made a really useful art yet. M. Godard, however, appears to be in a very fair way of making it something more than it hitherto has been.

Bessemer's Patent.

On our claim page it will be observed that H. Bessemer has obtained an American patent for his improvement in the manufacture of iron. This claim is based upon a scientific discovery in the manufacture of the iron; namely, producing combustion without fuel, by forcing air, steam, or other gases through molten iron in a vessel, to supply oxygen to the carbon in the molten crude metal, and thus produce combustion to burn out the excess of carbon in the crude metal. The claim is based upon this idea as his discovery, not that he was the first that used air or steam in this manner, but that he discovered the cause of the effect produced by driving oxygenated gases through molten iron.

It was Mr. Bessemer's paper read before the British Association for the Advancement of Science, which produced the recent excitement regarding this new process. There really seems to be a strange complication of the question between his patent and the prior one of Mr. Martien. Jets of steam and air forced through the molten metal as it is run from the smelting furnace is the substance of Mr. Martien's claim.

The peculiar action discovered by Mr. Bessemer, as embraced in his claim, is only obtained by employing Martien's process.—Query:—How is Mr. Bessemer's claim to be sustained, as he has invented no new process, and how can a new manufacture be obtained by his discovery, as demanded by the Patent Law?

Scientific Men and Practical Men.

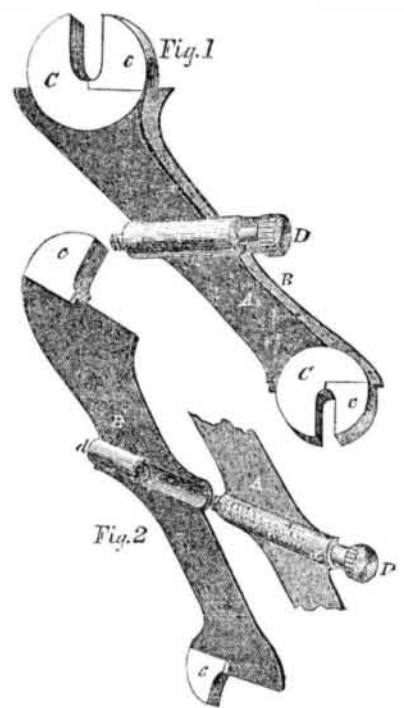
A correspondent signing himself "Telegraph," writing from this city to the Philadelphia *Ledger*, censures Professor Bache for not giving Prof. Morse more praise for his invention, in his address before the American Institute. If Prof. Bache did not mention the name of the inventor of the Electro-Magnet Telegraph as forcibly as he might have done, this, we presume, was not done disrespectfully. The principal fault which we find with Prof. Bache's lecture is the idea which it seems to convey respecting practical men, namely, that useful inventions have all been based on some discovery in science previously made by men known as Professors of the Sciences, such as Ampere, Oersted, Henry, &c. In some cases this has been true, in others not. The Morse telegraph is based upon the invention of Prof. Henry in the electro-magnet, and if it had been patented for the purpose of producing mechanical effects, moving machinery, &c., all the telegraph companies in our country would have had to obtain his consent to its use. But

it is well known that the great majority of useful inventions have been made by practical men without much aid from men of great scientific reputation.

By experiments, practical plodding men have made the majority of discoveries in science. Oliver Evans, Fulton, Arkwright, Watt, Trevithick, George Stephenson, and the majority of great inventors made improvements which are simply the facts of science.

Many persons make great mistakes respecting what science is. They seem to consider it something above and beyond practical operations, but the fact is, it simply consists in the classification and explanation of discoveries—inventions. A machine truly practical is truly scientific.

Diagonal Adjustable Wrench.



These two figures represent Baxter's Diagonal Adjustable Wrench, patented on the 12th of February last. A B are two forged pieces of metal composing the entire wrench, with double jaws. Each jaw is divided into two parts, C C, the larger part of the jaw belongs to the half, A; the parts, c c belong to the other half, B. At the middle of the wrench, inside, is a small socket, d, on A, and another, d, on B. The screw, D, is secured in the socket of A, and passed into the other, which has a thread in it. The two pieces, A B, are placed on one another and the screw, D, turned in its socket, and thus we have the whole anatomy of the tool, figure 1 showing the two parts secured together, forming the wrench, and fig. 2 two parts separate, and adapted for being secured together.

By turning screw D, the jaws are extended and contracted by the socket nut, d, moving the part B, in a diagonal direction on the part A. It is a most simple and convenient S wrench; and the set screw, D, is so placed that but little strain comes upon it, which makes it very durable. Being easily adjusted by screw D, to operate on different sized nuts, its adaptability for railroads, machine shops, and all purposes for which tools are used, is apparent. Six different sizes of such wrenches are manufactured to render them suitable for all mechanical trades.

More information respecting them may be obtained by letter or otherwise, from O. McComb, No. 190 West street, this city.

SPLENDID PRIZES.—PAID IN CASH.

The Proprietors of the SCIENTIFIC AMERICAN will pay, in Cash, the following splendid Prizes for the largest Lists of Subscribers sent in between the present time and the first of January, 1857, to wit

For the largest List,	\$200
For the 2nd largest List,	175
For the 3rd largest List,	150
For the 4th largest List,	125
For the 5th largest List,	100
For the 6th largest List,	75
For the 7th largest List,	50
For the 8th largest List,	40
For the 9th largest List,	30
For the 10th largest List,	25
For the 11th largest List,	20
For the 12th largest List,	10

Names can be sent in at different times and from different Post Offices. The cash will be paid to the order of the successful competitor, immediately after the 1st of January, 1857.

See Prospectus on last page.