New Inventions.

An Unjust Tax.

The government of the United States in the nineteenth century continues to make an Englishman pay $500 whenever he solicits a patent for an invention in this country—all other foreigners only paying $300 for the same privilege. This, in the estimation of all liberal men, is an indecent discrimination—a disgrace to our statute books—one that ought to be wiped out at once. If there was any gumption in the Congressional Patent Committee, this disgrace would not be tolerated another month. We despair of any change at present; there is no one to lobby it through, therefore there is little or no chance of its success.

California Inventors.—Signing Drawings.

We have been compelled to send out several sets of drawings to our California clients after their specifications had been returned to us with the proper signatures and oaths. This has caused much delay and dissatisfaction, and we regret it; but the difficulty lies wholly with the late odious rule promulgated by the Commissioner of Patents, which requires that all drawings must be signed; and this, too, in face of the statute, which expressly declares that the drawings constitute a part of the specification. The specifications in the cases above referred to were sent out to our clients some time before the rule was promulgated, and we tried in vain to get the Commissioner in such cases to allow the suspension of the rule, but he was inexorable, it was of no use; hence the great delay in getting the cases properly before the Patent Office. This public explanation we consider due to ourselves, lest there should be dissatisfaction felt at our negligence in the matter. The rule, once obsolete, and always useless, works badly. One case now before us, returned from Texas, the drawings were almost ruined in transit, so that we scarcely believe the Patent Office will receive the case. We are not to blame; and in spite of our earnest endeavors to get the rule suspended, it is still rigidly enforced in all cases.

Another New Light.

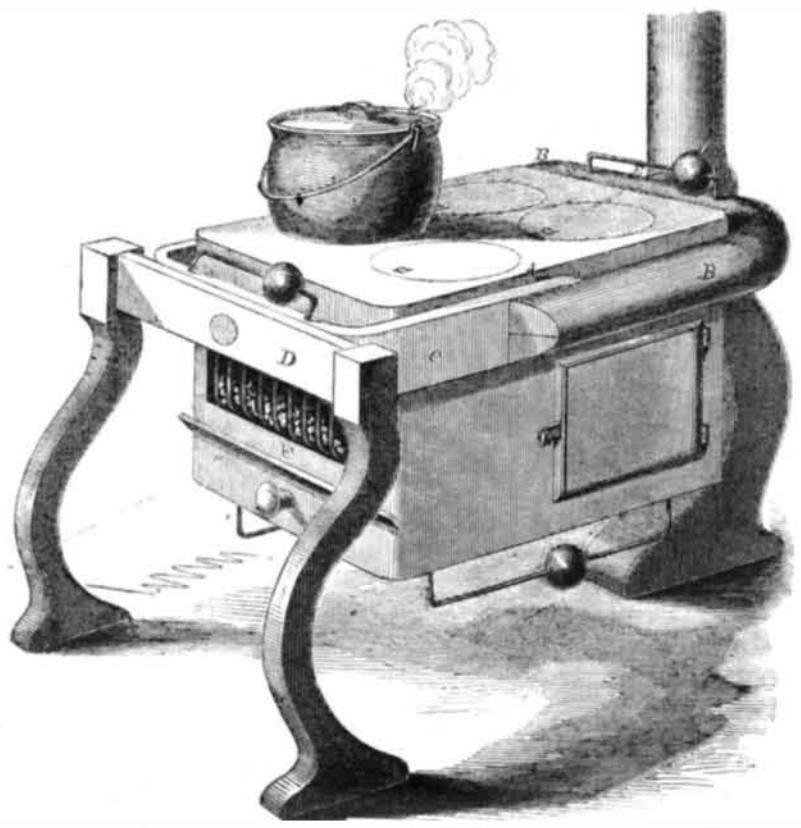
Several correspondents have written to us concerning an extract which recently appeared in the *Commercial Advertiser*, of this city, from its London correspondent describing a new and extraordinary light, lately patented in England by the Hon. W. E. Fitzmaurice. It is stated that it was exhibited at Cherbourg, France, during the recent visit of the Queen of England to that famous fortified city, and that while it is as brilliant as the Drummond or calcium light, the materials of which it is made are exceedingly cheap. A light equal to that of 500 street lamps can, it is said, be produced for 87 cents, which will last for twelve hours, and a jet equaling eight sperm candles to last for twelve hours costs only 8 cents.

We have not been able to obtain any reliable information about this light. It is not very safe, however, to place full faith in the statements of those who write upon such questions as mere *news* correspondents, because in general they are not acquainted with science or the arts, and are not therefore capable of forming correct opinions.

Improved Cooking-Stove.

The rocking motion of ships, while traversing the "briny deep," interferes considerably with the draught of the cooking-stove, and with the safety of the contents of the vessels placed upon it to be cooked, and many a ship's cook has lost his temper, and the crew their dinner, by the ill-natured waves of old Neptune. To obviate all this, and to preserve the articles on a stove and the stove itself in a state of equilibrium, whatever be the motion of the ship, D. S. Beardsley, of New Haven, Conn., has invented the subject of our illustration.

BEARDSLEY'S SHIP COOKING-STOVE.



The stove, F, as seen in the engraving, is hung in hollow gimbals, A, which form the flue and communicate with the smoke-pipe, B, also hung by a hollow joint in the chimney, E, and by a solid bearing in the front frame, D. This, it will be seen, forms a universal joint or gimbal ring, enabling the stove to maintain its parallelism whatever be the angle of the ship, and the stove can be provided with the usual apertures at the top to admit of pots and pans, and an oven, together with the common appliances of a ship's cooking-stove. Should it be necessary to destroy the balance of the stove by placing a kettle or pan on one corner, there are a series of balance weights that slide in rods, two on the gimbal ring and smoke passage, B, and two more on the bottom of the stove itself, by adjusting these weights the balance can be preserved, and the contents of the cooking vessel and the vessel itself will be safe from accident from the motion of the ship at sea.

This invention which should be adopted generally by ships as safe, convenient and economical, was patented Jan. 6, 1857, and any further information may be obtained by addressing the agents, or O. H. Corsa, 383 Third avenue, New York, or B. S. F. Corsa, of New Haven, Conn.

WARLICK'S BEDSTEAD.

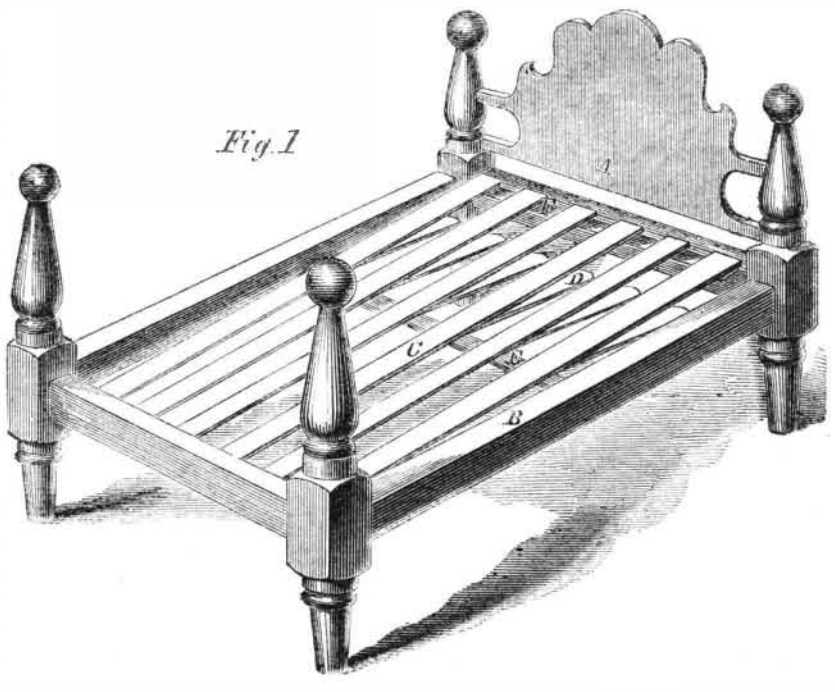
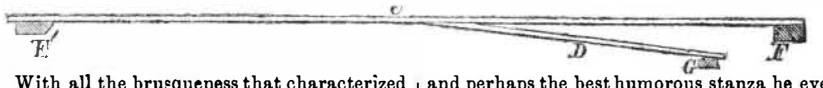


Fig. 2



With all the brusqueness that characterized that great lexicographer, Samuel Johnson, and savage as he was when opposed upon any of his favorite theories and ideas, he had yet an amount of learning, importance, honesty, and even geniality, to make him admired by his greatest enemies and beloved by his friends. There is one feature of his character which is worth our while to notice, and that is his humor and fondness of a good bed, and perhaps the best humorous stanza he ever wrote was addressed to a bed, commencing—

"In bed we are born, in bed we die,
In bed we laugh, in bed we cry"—

And he concludes by showing the necessity of a bed as an item in the sum of human happiness. For this fact, therefore, we have this great authority, and we venture to add that for a bed to contribute, by the rest we enjoy thereon, in any way to our happiness, it must in itself be comfortable and pleasant. Such a one is the subject of our engraving, the invention of Noah Warlick, Jr., of Lafayette, Ala., and is a spring bedstead of improved and simple construction.

Fig. 1 is a perspective view of the bed, and Fig. 2 is a side view of one of the slats.

The head and frame of the bed are seen at A B, across which pass the pieces, E G. The slats, C, are attached to two end pieces, F F′ To each slat there is a piece, D, attached, as seen in Fig. 2, which, when the slats are placed on the bed, rests loosely on the cross-piece, G, which forms a spring to the slats, thus cheaply forming a spring mattress or bottom, without any complicated parts or any arrangement difficult to be put together.

It is a most simple and efficient device, and as at a low price a spring bed can in this manner be made, and the invention deserves to come into very general use. It was patented Nov. 16, 1858, and further particulars can be obtained by addressing the inventor as above.

Rights are for sale by B. E. Meyer, 347 Broadway, this city, and he will also be happy to give any information concerning this bed.

Saltpeter—Nitric Acid—Purifying Oils.

All common coal oils have a most offensive odor, which is a great objection to their use by most persons, and were it removed they would certainly be more acceptable. This fœtid smell can be removed by employing nitric acid as a purifying agent, and at the present prices at which such oils are selling, the manufacturers of them can well afford to use it as a substitute for the cheap sulphuric acid. Nitric acid possesses the quality of deodorizing all fœtid oils, but it is too high in price to use for such a purpose. Were saltpeter more abundant, this acid could be made at much less cost, as it is the source from which it is obtained.

Oils of the same sub-spirituous character as those obtained from coal and tar can be manufactured from grease and coarse animal oils by submitting them to slow distillation at a comparatively low temperature, and they can be burned in the common carbon oil lamps, but they have a most offensive odor also. Nitric acid could remove this, and convert the repulsive oils into fragrant burning fluids.

The New York *Evening Post* of the 11th inst. contains an excellent article on coal oils (in which the information on tar oils on page 118 of the present volume of the Scientific American is embodied), but it contains one error in reference to a mixture of coal oil and camphene. It states that this oil bids fair to become a popular illuminating agent, but "it is highly explosive." This latter statement is not correct. If it contained alcohol, it would come under that definition, not otherwise.

The *Post* justly condemns the common oil lamps as being clumsy and inconvenient for domestic purposes.

Earthquakes.—Tenacity of Life.

At the Royal Institution, London, Dr. Lacaita recently delivered a lecture on the earthquakes of southern Italy, and stated that during the last seventy-five years the kingdom of Naples had lost 110,000 inhabitants by such calamities. In 1783, a young and beautiful girl was buried under some ruins caused by a great earthquake, and was dug out alive after eleven days, during which she had counted the days by a single ray of light, which reached her through a crevice. She lived for nine years afterwards, but was always sad and gloomy. In the earthquake of December, 1856, two little girls were buried in the ruins of a house; one died, but the other was disentombed alive after eight days, and she still lives. A donkey which had been buried for fifteen days was dug out alive; two mules after twenty-two days; and two pigs after thirty-two days.