

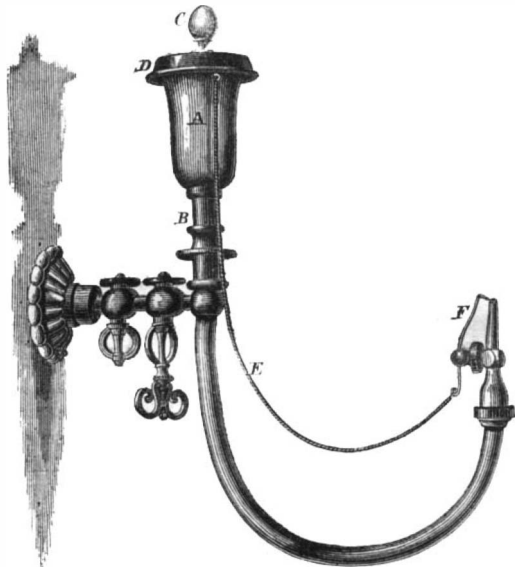
Improved Boot-blackening Case.

No doubt many of our readers who polish their own boots and shoes have found it exceedingly inconvenient to have their brushes and blacking lying about in one place and another, wherever careless housemaids choose to throw them. There are often busy little fingers, too, prone to do things which they should not, ready and eager to investigate the contents of the blacking boxes, and to eat the paste for the sake of the sweetish taste the molasses imparts to it. It is also annoying to hunt about for a box, or some place to put the foot on while the boot is polished. All these vexations will hereafter be avoided wherever the apparatus illustrated in the accompanying engraving is used. It will be seen that a neat box is provided, with a pedestal, A, on which the foot is set. This pedestal has a spring base, so that the foot can be inclined at any angle, and all parts become accessible to the brush. The blacking is always held firmly in one place, and the brushes are to be put inside the case; the lid lifts for that purpose. The bottle at the side contains liquid blacking, so that all the necessary fixtures have their several places. The wire handles, B, at one end of the case, afford a convenient brace to hold by while polishing. The can, C, is to contain water for the paste blacking. This is a very useful contrivance, and one which should be introduced into every well-regulated house. To persons living in hotels or boarding-houses, as well as housekeepers, it will be found equally advantageous.

Patented through the Scientific American Patent Agency, on the 13th of October, 1864, by J. H. Porter, No. 415 Hudson street, New York. For the apparatus or purchase of rights address as above.

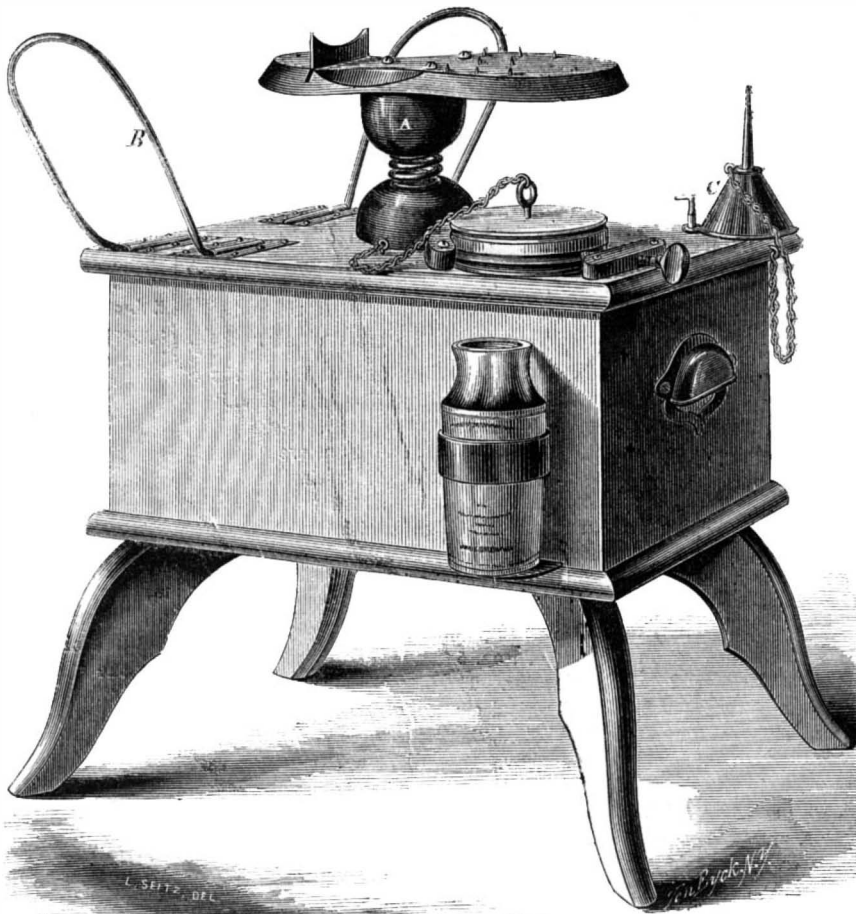
CORNELIUS AND BAKER'S ELECTRIC BRACKET.

The idea of lighting gas by electricity is not new. In former years many plans were tried to effect the object, but they all lacked the simplicity required to make them practicable. When the Cooper Insti-



tute was dedicated it was intended to light every burner instantaneously by electricity at a certain point in Mr. Cooper's (the founder) address. The time came, but the light did not; and the orator, after pausing for a light in vain, omitted that part of the ceremony. This bracket, or apparatus, is liable to no such derangement, for the electric current is generated by friction, and is certain to work. We have

one in our office, and have tried it at all times and found it infallible. It will be generally understood by the following description:—The brass cup, A, sets on the hard rubber insulator, B, and has a fur lining, which is afterward covered with silk. The knob, C, is the handle to a hard rubber cap, D, which fits the cup so snugly that a slight pressure is needed to force it down to the bottom. By the friction of the

**PORTER'S BOOT-BLACKING CASE.**

cap with the fur and silk lining, the cup is charged, and the conductor, E, carries the spark to the wire, F. This wire is of platinum, and is set at a definite point from the burner. By merely lifting the cap, D, the gas jet is ignited. The operation is as beautiful as the effect is instantaneous, and the use of matches is entirely obviated. For use in parlors, sleeping rooms and, in fact, all places, this bracket is an exceedingly convenient thing, and produces a great saving of matches. One can be seen in operation at this office. Patented by Robert Cornelius, in October, 1864. Manufactured by Cornelius & Baker, manufacturers of gas fixtures and chandeliers, 710 Chesnut street, Philadelphia.

Converting Iron into Steel.

At the Academy of Science, M. Caron sent in a paper on Cementation, in which, contradicting the views entertained by M. Margueritte, who supposes pure carbon to be alone sufficient to convert iron into steel, he remarks that the operation on a large scale consists in enclosing iron bars in a large box of the same metal, together with charcoal made of green wood. When the mass has got to a red heat, the oxygen of the air contained in the box forms an oxide of carbon by its contact with the charcoal; on the other hand, the nitrogen of the same air forms cyanides with the alkaline metals contained in the charcoal, so that the iron to be cemented is in contact with three principal elements—carbon, oxide of carbon, and the cyanides alluded to, all of which elements are necessary to cementation.

BLOCKADE RUNNING.—The captain of a vessel direct from Glasgow, Scotland, says there are hundreds of steamers building and fitting out in the Clyde and adjacent waters, all to run the blockade. They act as if the war was to last for the next five years. He says every shipbuilder on the Clyde has gas-lights in his yards, and, with relays of hands, works every hour of the twenty-four.

The Way to Prepare Tripe.

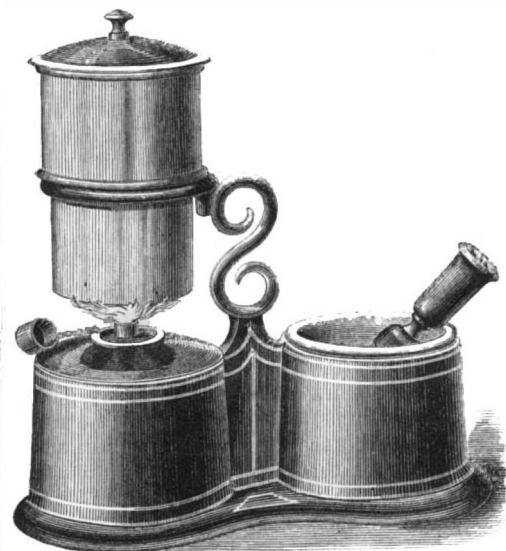
At the last meeting of the Farmers' Club, Solon Robinson, in reply to an inquiry by a correspondent, gave the following clear directions for preparing tripe:—

“Cut as small an opening into the paunch as possible through which to empty the contents. Do this with care, so as not to smear the outside, and carefully wash off any substance that may adhere. Then let one man thrust his arm into the opening and seize the bottom firmly, while another turns the sac inside out. Now sow up the slit that was cut, firmly, with strong twine. The sac is now to be thoroughly washed in cold water, and then either covered with whitewash just as you would cover a sheepskin to loosen the wool, or else placed in a tub of strong alkali made of lime, or wood ashes or potash, and kept there until the woolly coating is loosened so that it can easily be scraped off with a knife. As soon as this is the case, give the sac another thorough washing to cleanse it of the lime, and then it is ready to be cut up for scraping. Cut it in long strips, about five or six inches wide; lay one of these upon a table or board before you, fastened at one end with a couple of tacks, and scrape with a dull knife until quite free of the adhering coat. Then wash and put the tripe to soak in weak brine for twenty-four hours or longer. Then wash again and it is ready for boiling. It should be boiled until it is quite tender, when it may be pickled or put away to be eaten fresh after re-cooking by stewing, frying or broiling; and

there certainly is no part of a beef that affords richer or more palatable food; it is through the sin of ignorance that it is so often wasted.”

BOURNE'S HEATING AND SHAVING APPARATUS.

This engraving represents an extremely convenient apparatus for heating water for shaving, or other domestic purposes. Both the spirit lamp and the soap dish are contained in an ornamental cast-iron stand which is bronzed, or ornamented in any desired style. The lamp and water vessel are made of



japanned tin, or any other material, and the soap dish can be removed for cleansing, when necessary. To boarders and others it will be a great convenience.

Rights for the sale of this apparatus and all further information can be had by addressing Charles S. Bourne, Springfield, Mass., by whom it was patented through the Scientific American Patent Agency, on Sept. 13, 1864; or Wm. E. Udell, Albany, N. Y.