

KAUFMAN'S HOME-MADE CORN-BROOM.

The manufacture of corn brooms is a very extensive industry, consuming directly and indirectly, a vast amount of labor. The corn is bought by the manufacturers from the farmers, carted to the factory, made into brooms, which are sent to the large cities for sale, where they are bought by country merchants and carried back to the country to be retailed to the farmers who raised the product from which they are made. The corn producer is obliged to pay for all of this transportation, besides the several profits of the manufacturers and traders. The invention here illustrated is intended to save all this unnecessary labor, by enabling every farmer to make his own brooms from his own corn. It is well known that by the present mode of manufacture, the corn is fastened to the handle by being bound with wire or cord, the labor being performed by a skilled workman who has learned the trade. By this invention the corn is secured to the handle by means of simple brass clamps which may be applied by any one.



Fig. 1 of the engravings represents the broom complete, Fig. 2 shows the clamps and end of the handle without the corn, and Fig. 3, the mode of fastening the clamp to the handle. Through a slot in the end of the handle a brass block, *a*, is passed. In the end of this block are holes for screws by means of which the two clamps, *b b*, are secured to the handle. The ends of these clamps are bent at right angles, and slide one within the other. The butts of the corn are passed between the clamps and tied at their upper ends around the handle, while the clamps grasp them at a point lower down and hold them securely in place; the clamps being drawn together by two screws beside the one that passes through the handle.

In placing the corn between the clamps the long pieces are placed upon the outside, and these only reach up to the cord, the shorter pieces in the middle extending only two or three inches above the clamps.

When the corn is worn out, it may be replaced by a fresh supply; and thus one handle with its set of clamps will serve for a great number of brooms.

The patent for this simple and valuable invention was granted, through the Scientific American Patent Agency, February 19, 1861, and further information in relation to it may be obtained by addressing the inventor, Daniel Kaufman, at Boiling Springs, Pa.

The British government has again commenced to issue 100-pounder Armstrong guns.

PLATT AND ROSECRANS'S STAR BURNER.

Among the hundreds who have been busying their brains in the effort to devise a lamp that would burn coal oil perfectly without smoke or odor, and without the tall chimneys in general use, are Dr. A. H. Platt, of Cincinnati, and Gen. W. S. Rosecrans, of the U. S. army. After more than four years' labor,

Fig. 1



and the expenditure of some \$1,500 in experiments, they believe that their efforts have been crowned with complete success, as will be seen by the following letter from Gen. Rosecrans.

"MESSRS. EDITORS:—Returning home for a few days, after six months' absence, I find a patent has been issued for a valuable invention in coal-oil lamps to Dr. A. H. Platt and myself. Having been a reader of your paper for many years, I feel desirous that you should see and express your opinion of it in the SCIENTIFIC AMERICAN. I consider it has accomplished all that can be done toward making coal oil convenient for domestic use, dispensing with all but a short glass chimney to give steadiness to the blaze.

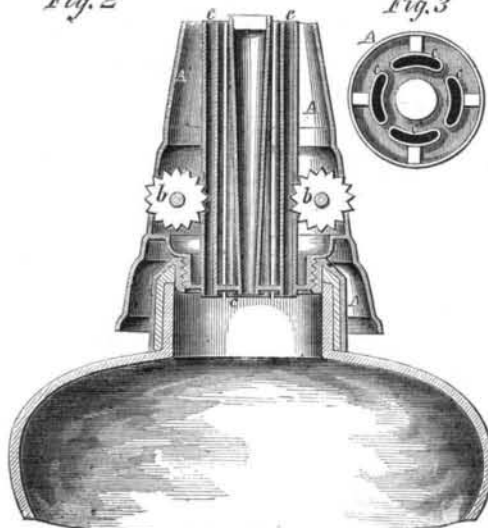
"W. S. ROSECRANS.

"Yellow Springs, Ohio, Dec. 9, 1861."

The lamp is clearly represented in the accompanying engravings, of which Fig. 1 is a prospective view, Fig. 2 is a vertical section and Fig. 3 a horizontal section through the burner.

Fig. 2

Fig. 3



The burner, *A*, is in the form of a truncated cone, as usual, and it contains four wick tubes, *c c c c*, but slightly converging toward their upper ends. Into these flat bands of wicking are inserted, with the twilled side out, and the height of the wicks is adjusted by means of the spur wheels, *b b*. The flame is surrounded by a glass chimney only four inches in height, which supports near its top a small neat shade; the whole forming a compact and very beautiful

lamp. In accordance with the request of Gen. Rosecrans we have tried the lamp, and are very much pleased with it in every respect. It burns coal oil without giving out any smoke or odor, and gives a steady white and brilliant light.

The American patent for this invention was granted Oct. 5, 1861, and applications have been made for patents in Europe. Further information in relation to the matter may be had by addressing Dr. A. H. Platt, Yellow Springs, Ohio. (See advertisement on another page.)

HAWAIIAN RICE.—The *Polynesian* states that the culture of rice has been commenced, and goes on promisingly near Honolulu. About 200 acres of it are under cultivation, and in six months it is expected that half a million pounds will be raised. Other islands of the Polynesian group are also commencing to cultivate rice. The rice of Honolulu is equal to that of Carolina, and it yields about 3,850 pounds to the acre.

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