

**THE STAR BLACKSMITH'S HAND BLOWER.**

The blacksmith's hand blower which we herewith illustrate is the invention of Mr. C. Hammelmann, and is manufactured by the Star Machine Company, of 198 and 200 Terrace, Buffalo, N. Y. The main wheel is revolved by means of a rack, which is moved up and down in guides attached to one of the standards, and which engages with a pinion provided with a suitably arranged clutch. The rack is operated by a lever hung on a swivel. By means of set screws, any wear of the pinion and rack can be taken up. This blower can be

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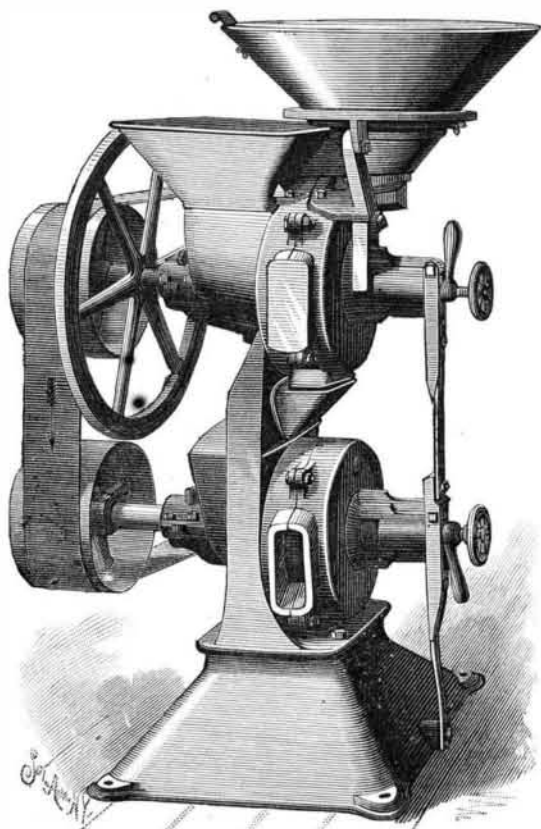
easily attached to any stationary hearth; it occupies a floor space of only about two feet square. With little labor it will produce all the blast needed by any blacksmith's fire.

**THE "QUAKER CITY" GRINDING MILLS FOR CORN AND COBS, GRAIN, BONES, ETC.**

The accompanying illustrations represent some recent improvements in a well-known disk grinding mill, adapted for grinding grain, corn, and oats mixed, or corn and cobs, both old and green, bones, etc., as well as for grinding minerals and paint, and a wide variety of work. The cutting of the cobs, bones, etc., is effected by a hardened cast steel knife, let edgewise into the cone-shaped cutter-head upon the spindle. When this knife requires grinding or renewing, it is lifted from its seat by driving a cold chisel under one end, and it can be easily driven back again after sharpening.

It is shown in position upon the spindle in the illustration, near the single grinding mill. Back of the knife, and inside of the grinding disks, is a series of pockets formed in the cone head, to act as receptacles when the knife cuts too fast for the disks to grind, these pockets delivering their contents to the disks when the knife cuts slower, and thus equalizing the work. One such knife upon the cutter head is considered preferable to more than one, as allowing more time for the cobs to descend between cuts.

The double mill works on the principle of gradual reduction grinding, the top mill cutting and grinding as fine as a single mill, and then discharging into the lower mill, which grinds still finer, and discharges the

**STRAUB'S "QUAKER CITY" DOUBLE GRINDING MILL.**

product from either side of the case as desired. The belt, as shown, passes over both pulleys, in the manner indicated by the arrow, thence back to the driver, and in this way is found to work well, without slipping. A hopper and feed shoe is provided for feeding all shelled grain.

The grinding disks are of cast steel, interchangeable, and cheaply renewed. They are divided into the saw-toothed inner edge or eye, upon which is located the conveyer flights; the bossed space between the disks is filled with furrows, running their knife edges front to cut the grain fine, and the flat outer portion with furrows running their inclined side front, crushing or mellowing the already cut meal, in the manner of corrugated rolls running at different speeds. The spindle is of steel, with hardened steel button between its end and the temper screw. It has a hub which carries the running disk, cob-cutting knife, eccentric, and pulley.

These mills are manufactured by Messrs. A. W. Straub & Co., of No. 3737 Filbert St., Philadelphia, Pa.

**An English Trade Mark Case.**

In the Court of Appeal, London, Lords Justices Cotton, Lindley, and Lopes recently decided the question whether a representation of the article sold could be itself used as a trade mark.

Messrs. Edward James & Sons manufacture black lead in the shape of dumpy cylinders rounded at one end. To these they had applied the term "Dome-shaped," and had registered a black dome as their trade mark for the article in 1877.

Last year they brought an action against M. J. Parry & Co., to prevent the use by them of certain labels on which representations of "cylinder" black lead appeared, which the plaintiffs alleged infringed their trade mark. The defendants moved to have the plaintiffs' design removed from the register of trade marks, on the ground that it was not the proper subject of a trade mark. The late Mr. Justice Pearson, on December 21 last, gave judgment for the defendants, holding that a pictorial representation of the actual article to which a mark is applied is not a proper trade mark. He said that it was curious there had been no decision on the subject in the courts of this country, though there were several in those of the United States of America in accordance with his view. Since the hearing by Mr. Justice Pearson, Messrs. Parry & Co. have ceased to manufacture black lead, and have discontinued the use of the mark in question, so that the injunction has become immaterial to the plaintiffs; but the plaintiffs appealed from the decision so far as it ordered the registration of their trade mark to be vacated.

Lord Justice Cotton said that the only question was whether Mr. Justice Pearson was right in saying that the dome could not be registered as a trade mark. The plaintiffs could not possibly claim any monopoly in the shape. But the registration of the mark did not purport to give them any such monopoly. They claimed a right to use the dome as their trade mark, in whatever shape they might sell their black lead. In his Lordship's opinion, there was nothing to prevent its being registered under the Act as a trade mark. The Act (that of 1875) required, by section 10, that a trademark should consist of (*inter alia*) "a distinctive device, mark, heading, label, or ticket." Was this dome a "mark"? It certainly was. Was it distinctive? His Lordship thought it was, and that it would be so, even if the plaintiffs sold their black lead in a different shape. Mr. Justice Pearson treated the case as an attempt to register a picture of the article that was sold. But it was not really that. It was true that the plaintiffs did sell their black lead in the shape of a dome. But they impressed the mark on the article as their trade mark. They had also

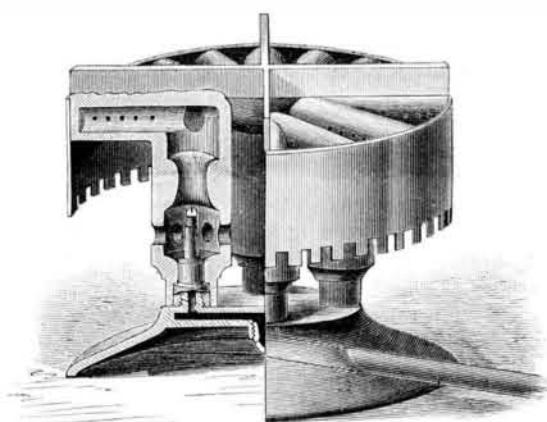
used the words "registered shape" on their labels. That was wrong. But, in his Lordship's opinion, the dome could be registered as a trade mark. Some American cases had been referred to, and of course this court would pay regard to the decisions of American judges, though they were not binding on it. But in his Lordship's opinion, the cases referred to were not authorities upon the point raised in the present case.

Lord Justice Lindley was of the same opinion. The evidence proved that the dome was a distinctive mark. Why, then, should not the plaintiffs place it upon the article which they sold? If they chose to sell their black lead in the shape of a cube or a sphere, why should they not mark it with a dome? His Lordship agreed with Lord Justice Cotton as to the American cases. He was unable to adopt the view of the American judges as applied to the English statute.

Lord Justice Lopes concurred. He said that by a "distinctive mark" he understood a mark as to which, in case of an alleged infringement, it would be clear what that infringement was, and a mark distinct from all other marks used in the same class of trade. It was said that this mark could not be registered because it was a picture of the article itself. But it could not be disputed that it would be a "distinctive mark" if the plaintiffs sold the article in the shape of a square. Why was it the less a "distinctive mark" because the article was sold in the shape of the mark itself? The American cases were of very little value without seeing the American Act upon which they were decided.

**IMPROVED GAS STOVE.**

This stove may be formed of a single chamber, having at its top radiating hollow arms formed with a series of holes in each of their sides from which the escaping gas is burned, and having its bottom, in which are air inlet holes, contracted to fit snugly upon the gas jet. The air holes are placed slightly below the top of the jet, and serve to admit air, which mixes with the gas on its passage to the burner holes, thereby causing a thorough combustion, with intense heat, and without smell or the formation of lampblack.

**BISBEE'S IMPROVED GAS STOVE.**

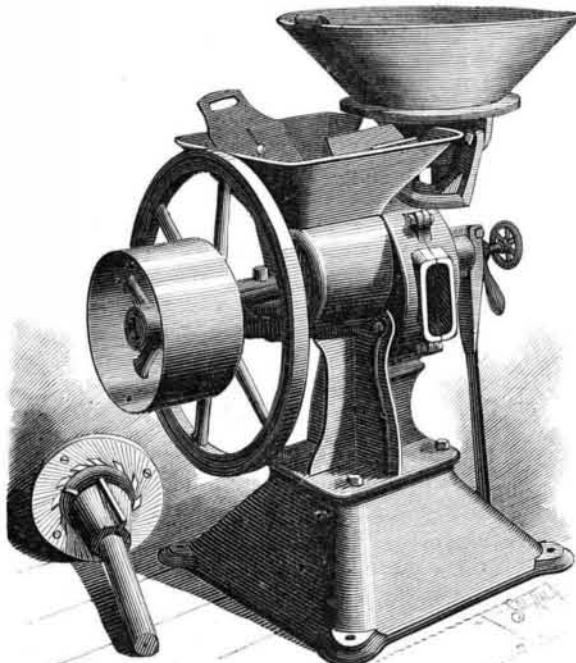
Upon the upper surface of the arms are suitable supports for holding the object to be heated.

Or the stove may consist of several chambers, each formed at its upper end with a cluster of radiating hollow arms, as shown in the engraving. The lower ends of these chambers fit upon gas burners, and are constructed in the same manner as the one already described. This arrangement provides for the free escape of the products of combustion and also for the free access of air to the gas jets, so that the carbonic acid gas given off at one part of the stove will not deaden the flame at another. The side rim directs a copious supply of air to the burners and prevents side draught from deflecting the flame from the object being heated.

This invention has been patented by Mr. Clarence L. Bisbee, of 198 17th Street, Brooklyn, N. Y.

**Balloon Photography.**

M. M. Tissandier and M. Nadar, the well known Parisian photographer, made a balloon ascent from Auteuil on July 2, 1886, at 1:20 P.M., and subsequently descended at Segrie (Sarthe) about 7:10 P.M., after a journey of 180 kilometers. The altitude reached was not over 1,700 meters, and during the voyage M. Nadar took not less thirty photographs of the instantaneous kind. Of these there were about a dozen which are said to be by far the finest specimens ever obtained from a balloon. They comprise two views of Versailles, showing in plan the palace and one part of the gardens from a height of 800 meters. Another is a view of Sevres above the porcelain factory from a height of 600 meters. A third gives a view of a quarter of the town of Bellême (Orne) from a height of 900 meters; and others give views of the little town of St. Remy (Sarthe) and its environs. The height in some of the latter cases was 1,200 meters. The time of exposure for the gelatino-bromide plates was  $\frac{1}{100}$  second. The photographs have been enlarged by M. Nadar with a new kind of Eastman paper, and the fineness of the detail shown is remarkable.

**STRAUB'S "QUAKER CITY" SINGLE GRINDING MILL.**