

**AN IMPROVED MANGLE.**

The principal hindrance to the general introduction and use of mangles in this country has been their cost and their complicated nature. In Europe, notwithstanding the objections, these machines are quite generally used and their utility is acknowledged.

The novel mangle shown in the accompanying engraving is the invention of Mr. Charles Reese, of 345 Madison avenue, Baltimore, Md. It seems to be a marked improvement in this class of machines, as it is without gearing and its parts are few and simple. The iron end pieces or standards support a concave bed, above which a convex presser block is suspended from a shaft at the top of the frame. This shaft may be raised or lowered by means of the lever that projects over the front of the machine. A suitable handle is attached to the front of the presser block, and between the presser block and the bed is placed a roller, around which the cloth to be mangled is wrapped.

The bed and presser may be made either of wood or iron, or a combination of both. If the presser is made of wood it must be weighted to give the required pressure.

The cloth to be pressed is wrapped around the roller, and the presser is raised by means of the lever at the top of the machine. The roller is inserted between the bed and the presser, the latter is let down upon the roller, and the cloth is pressed by swinging the presser back and forth by means of the handle.

This mangle occupies less space than other forms, and is cheaper, and it is claimed that it will do better work with less labor.

The inventor says that the arms which support the presser block may be extended even to the ceiling of the kitchen or laundry, and that the machine may be made a permanent fixture in the house.

This machine has been patented in this country, also in Canada, England, France, Germany, and Belgium. Any further information in regard to it may be obtained by addressing the inventor as above.

**AN IMPROVED EMERY WHEEL STAND.**

The saving of files and tools by the use of solid emery wheels, amounting as it does to thousands of dollars annually, is an item to be considered by manufacturers of iron and steel articles. There are few manufacturers of this class who could not in one way or another make use of solid emery wheels, and whatever tends to augment their usefulness will be readily appreciated. In the ordinary emery wheel stand considerable difficulty is experienced from the escape to the periphery of the wheel of the oil used in lubricating the mandrel. To avoid this, Messrs. Shoener & Allen, of 328 Walnut street, Philadelphia, Pa., have devised a concave grooved clamp—the construction of which will be readily understood from the engraving—which flings off the waste oil escaping from the journals and prevents it from creeping upon the stone. The machine has a broad and solid base, and the parts are arranged with a view to the greatest convenience. We are informed that the utmost care is taken in their manufacture; the arbors being of steel well fitted, and the boxes being hand reamed after being placed, to secure perfect alignment, and all of the pulleys are carefully balanced. Any further information in regard to this machine may be obtained from the manufacturers as above.

**A Dakota Wheat Farm.**

The largest cultivated wheat farm on the globe is said to be the Grandin farm, not far from the town of Fargo, Da-

kota. It embraces some 40,000 acres, both government and railway land, and lies close to the Red River. Divided into four parts, it has dwellings, granaries, machine shops, elevators, stables for 200 horses, and room for storing 1,000,000 bushels of grain. Besides the wheat farm, there is a stock farm of 20,000 acres. In seeding time 70 to 80 men are employed, and during harvest 250 to 300 men. Seeding begins about April 9 and continues through the month, and is done

**THE RHYSTON MANGLE.**

very systematically, the machines following one another around the field, some 4 rods apart. Cutting begins about August 8, and ends the fore part of September, succeeded by the thrashing, with eight steam thrashers. After thrashing, the stubble ground is plowed with great plows, drawn by three horses, and cutting two furrows; and this goes on until the weather is cold enough to freeze, usually about November 1. There are many other large farms in the Territory and in the same neighborhood, and they are tilled in

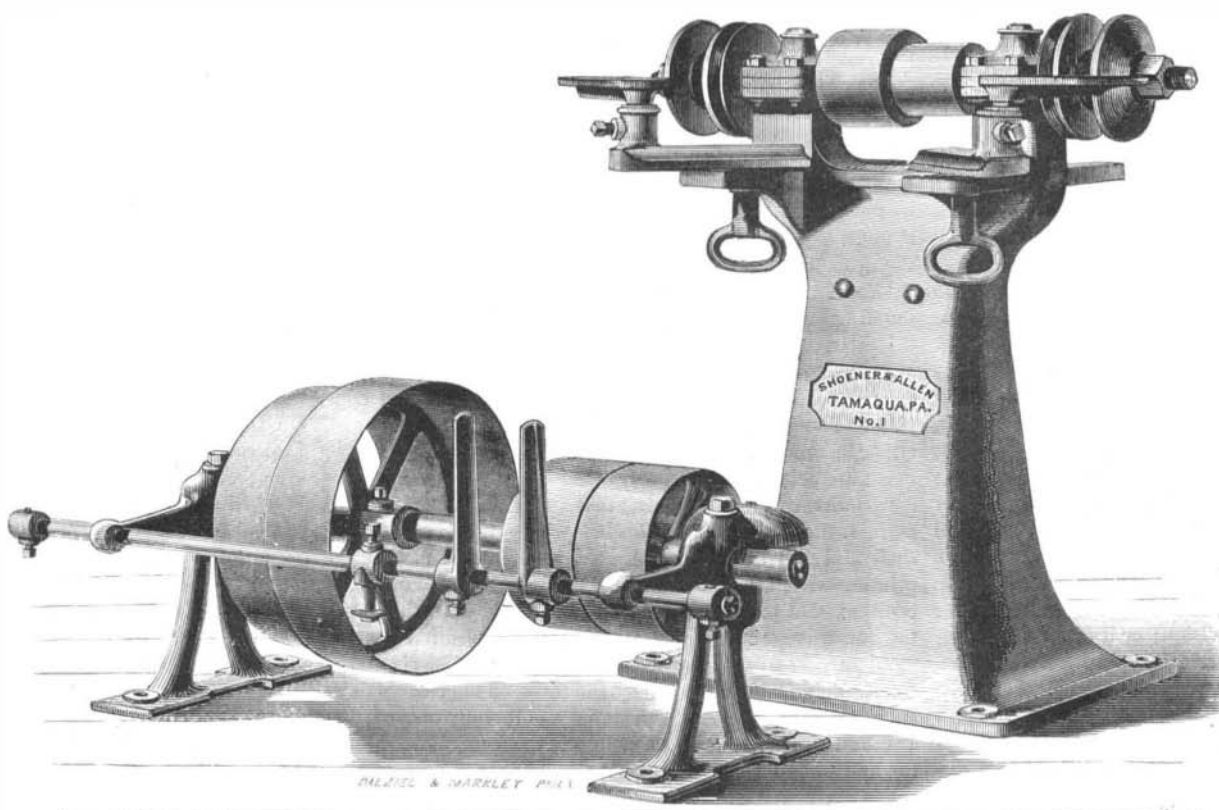
maintained its form and brilliancy. I must say here, that before sending a dispatch to the Naval Observatory, I thought that the object might be a reflection, but this thought was rapidly removed by placing a pasteboard tube of eighteen inches in length over the objective, but onward it moved with independent motion. Even the two-inch finder showed it faintly. At 10:45 I noticed its declination to be  $37^{\circ} 6'$ ; at 11:30 it neared the double star Alpha Gemini, and rapidly passing before a star of the sixth or seventh magnitude, seemed not to obscure the latter, but showed the star almost as brilliant as immediately after its passage. The declination now was  $37^{\circ} 28'$ .

At 12 o'clock I retired for a short time, after a wearisome chase of nearly three and a half hours. At 2:10 o'clock this morning I found it, after a search of about twenty minutes, in the zenith. It now seemed to be more brilliant than at any previous observation, its declination being now  $37^{\circ} 40'$ , and I fancied I could see it with the unaided eye, but cannot be positive of this. I must confess, although absurd, the thought entered my mind that one of the planetary nebulae, tired of its position, was seeking another and a better home."

**The Mirror Telegraph.**

Mr. H. Baden Pritchard contributes to *Nature* an interesting account of the use made of the heliostat by the English in their campaigns in Afghanistan and Zululand. It is

claimed that this is the first application of the mirror as an implement of warfare. Heliostat stations, says Mr. Pritchard, are now established throughout the Khyber Pass, and General Sir Samuel Browne, at Jellalabad, has his orders passed up to him by flashes of light from Peshawur and Ali Musjid. Lord Chelmsford has of late also been furnished

**SHOENER & ALLEN'S EMERY WHEEL STAND.**

much the same manner as the Grandin. The surface of the land generally is almost level, and the soil rich and black. The product of one field of 2,315 acres is 57,285 bushels—elevator weight—some 25 bushels to the acre. The average yield of the Dakota wheat farm is 20 to 25 bushels per acre.