

An English journal gives the following: "A process has been discovered for the prevention of the decay of wood. As the result of a five years' experience, a paint is recommended, which at the same time possesses the advantages of being impervious to water. It is composed of fifty parts of tar, five hundred parts of fine white sand, four parts of linseed oil, one part of the red oxide of copper in its native state, and finally, one part of sulphuric acid. In order to manufacture the paint from this multiplicity of materials, the tar, chalk, sand, and oil, are first heated in an iron kettle; the oxide and acid are then added with a great deal of caution. The mass is very carefully mixed, and applied while hot. When thoroughly dry, this paint is as hard as stone."

According to the *Gaslight Journal*, walls of remarkable lightness, porosity, and dryness may be built cheaply of bricks made from the ashes of the coke derived from gas-works. Mr. Wagner, the first inventor of the process for effecting this, instructs us as follows as to his *modus operandi*: "The ashes, after being taken from the retorts, are spread on the surface of a clean floor; they are then finely pulverized, and 10 per cent of slacked lime, together with a small proportion of water, is intimately stirred and incorporated with them. After a rest of twenty-four hours, the mixture is made into bricks by the ordinary process. These bricks are immediately transferred to the drying sheds, where a few days' exposure renders them fit for use."

A MECHANIC gives the following method of so putting tires on waggon wheels that they will not get loose and require re-setting:—"I ironed a waggon some years ago for my own use. Before putting on the tires, I filled the fellos with linseed oil, and the tires have worn out, and were never loose. My method is as follows: I use a long cast-iron heater, made for the purpose. The oil is brought to a boiling heat, the wheel is placed on a stick, so as to hang in the oil, each fello an hour. The timber should be dry, as green timber will not take the oil. Care should be taken that the oil is not made hotter than a boiling heat, or the timber will be burned. Timber filled with oil is not susceptible to injury by water, and is rendered much more durable by this process."

BAG HOLDER.—A very convenient arrangement for holding bags while filling them may be easily made as follows.—Take a piece of plank about twenty inches long and a foot wide, bevel off the sides a little, and nail strips of thin boards that will spring, six or eight inches wide, to it for uprights. The plank base should be bevelled enough to make the uprights about fifteen inches apart at the upper ends. The bag is placed between these, and the upper end folded over the ends of the shoulders two or three inches. It will be held firm, and in a convenient position for filling. The uprights should be just long enough so that the bag will rest upon the plank when being filled.

UNIVERSAL STANDARD OF MEASUREMENT.

According to the *Memorial Diplomatique*, the Austrian Government has just signified its assent to a proposal of the French Government for an International Commission to assemble in Paris in order

to agree upon a common standard of measurement for all civilized nations. Already fifteen European powers have announced their willingness to take part in the Commission. Even England, which hitherto has been disinclined to depart from old customs, will be represented by the Directors of the Observatories of Greenwich and Oxford. The French Government now only awaits replies from the United States, Brazil, and the South American Republics previously to calling together the Commission. The Minister of Foreign Affairs would, of right, be the honorary president, but the proceedings will really be directed by the vice-president, General Morin, Director of the *Conservatoire des Arts et M^{ét}iers*, in whose archives is deposited the official standard of the meter recognized in France.

AN INGENIOUS LUNATIC.

The *Pall Mall Gazette* tells the following story of a lunatic who recently escaped from an asylum in Ireland, and who was noted for his mechanical ingenuity:

"He could do things quite beyond what men in general can perform, and his cleverness was even exceeded by his versatility. He was a good shoemaker, a tailor, a weaver. He made from a scrap of iron a key by which he could open the door of his division. He put together a wooden sewing machine of his own contrivance, with which he made clothes for himself; and his mind just before his escape seemed so intent on improving this machine that there was little apprehension of his attempting to escape.

"His career, it is stated, before he came to the asylum was most extraordinary. He had been in the British army, in the French army, and in the French navy, and had been in British, German, and Russian prisons.

"He had a fair grammatical knowledge of French, he knew something of German, and was completely self-taught; his age, although he had passed the various phases of existence above described, was only twenty-seven."

USEFUL HOUSEHOLD RECIPES.

TO IMPROVE STARCH.—To each bowl of starch, add one teaspoonful of Epsom salts, and dissolve in the usual way by boiling. Articles starched with this will be stiffer, and will be rendered to a certain degree fire-proof.

TO REMOVE STAINS FROM LINEN.—To remove wine, fruit, or iron stains, wet the spot with a solution of hyposulphate of soda, and sprinkle some pulverized tartaric acid upon it; then wash out as usual. Strong vinegar can be used instead of the tartaric acid.

MOH POWDER.—Lupulin (flower of hops), 1 dram; Scotch snuff, 2 oz.; gum camphor, 1 oz.; black pepper, 1 oz.; cedar sawdust, 4 oz. Mix thoroughly, and strew (or put in papers) among the furs or woollen to be protected.

LIQUID FOR CLEANING SILVER.—Add gradually 8 oz. of prepared chalk to a mixture of 2 oz. of spirits of turpentine, 1 oz. of alcohol, $\frac{1}{2}$ oz. of spirits of camphor, and 2 drams of aqua ammonia. Apply with a soft sponge and allow it to dry before polishing.