pared with 591,058 in the provincial towns, so that Cobbett's "great wen," is not, as some assume, absorbing all the power of the State.

With regard to forty three secondary towns, the population of which ranges between 20,000 and 50,000, an advance has been made from 1,414,093 in 1851, to 1,653,386 in 1861, showing an augmentation of 239,293; and one hundred and seven still smaller towns, including, as in the case of their larger brethren, the additions made to many of them for parliamentary purposes, having a population of from 5,000 to 20,000, had in 1851, 954,038, and in 1861, 997,389 inhabitants, showing an augmentation of 43,351. The metropolitan district consequently increased in population at the rate of eighteen per cent.; the great centres of manufacturing industry at the rate of twenty-four per cent.; the second class towns at the rate of seventeen per cent.; and the little boroughs at the rate of four per cent. In fourteen still smaller townships, having less than 5,000 inhabitants each, the population remained all but stationary, being 52,108 in 1851, and 52,559 in 1861; so that the lower one gets in the scale the more stagnant one finds the tide of human life.

The excess of the fair sex in England amounts to the alarmingly large total of 544,021; but this disproportion between the sexes is not universal, the rougher section of humanity being in a majority in Derbyshire, Durham, Essex, Herefordshire, Kent, Hampshire, Staffordshire and Westmoreland. In Middlesex there 165,389, and in Lancashire, 86,100 more women than men, and the agricultural counties also reflect the continuous drain of emigration upon their adult male population.—London Times.

Canadian Timber for France.

"Annales Forestieres et Metallurgiques," a Parisian magazine of a semi-official character, writing under the heading of "Les bois de Canada," speaks of the decline of the timber exports of Norway, and of the impossibility of obtaining from thence the wood necessary for manufactures in France, and says:

"Everybody knows that our former colony is, so to say, a vast forest of four thousand leagues square, possessing as means of transit magnificent lakes and rivers, and in which whole armies of wood-cutters, or 'lumberers,' as they are called, cut down every year from eight to ten millions of cubic metres of timber, the greatest part of which is exported to the United States, and more particularly to England."

He goes on to argue in favor of exchanging for Canadian lumber the staple products of France, her wines, her porcelain, her silks, woollens and cottons, and above all, her "tabac de-caporal," which, he remarks, is "the delight of French Canadians."

Basswood.

In the United States, basswood is used to a considerable extent for seats of chairs, insides of drawers, parts of fanning-mills, and many other uses for which it is better adapted than almost any other wood. It is both light and strong, works easily and is not apt to split.

Basswood is one of the most abundant woods in Canada, but it has so far received little or no attention in commerce. The Quebec Advertiser urges that efforts be made to promote the export of basswood

mentation having been 440,798 in London, as com. lumber; and also the manufacture for export of wooden-ware made from basswood.

> In England a great business is carried on in the manufacture of white-wood ware, or Tunbridge-ware, and for such purposes, any wood which will "dry white" is used—the principal kinds being 'chestnut' --i. e., horse-chestnut, a very different wood from the common chestnut, (castanea vesca)---and lime, or, as we call it, basswood. Referring to this, our Quebec contemporary considers that a good business might be done in exporting this wood to England.

> For use in wooden-ware this wood must not be exported in logs, as in that state it can only be employed for the upper timbers of houses, ships, etc. But it must be exported in the shape of boards, inch, half-inch, and even as thin as the eighth of an inch, for veneering. The great object is to get the wood to dry white, and to secure this, it must be sawn quite fresh, and before the sap has had time to ferment, and thus discolor the wood. The boards are taken from the saw-mill or pit as fast as they can be cut, hung up under shelter from the rain, in an open shed, with a free draught of air, (not in piles,) until so thoroughly dry that there is not the least probability of their becoming mildewed. There would be still more profit to Canadians if they There themselves should convert their basswood into articles of wooden-ware, with which Canada probably could supply the world.

On White Gunpowder.*

Having lately prepared different samples of white gunpowder (according to the receipt of Dr. J. J. Pohl, given in the Chemical News, July 6) for some military engineering experiments, I have tried the process of separately grinding the materials, viz., chlorate of potash, ferrocyanide of potassium, and A contributer to the January number of the them together with a little water added, and then dried at a temperature of about 150°. I find that those samples which were prepared moist and then dried are more easily exploded than those prepared by the dry process. In fact, one sample exploded in an open porcelain dish by simple friction with a spatula with which one of my assistants was crush-ing some of the larger pieces. Through the explosion he was laid up for several weeks, and nearly lost his eyesight. No samples prepared dry are as explosive as those prepared moist, the addition of water causing a more perfect mixing of the particles of its chemical constituents than can be effected by This accounts for the the dry grinding process. greater danger attending the use of white gunpowder prepared in the moist way.

A cannon loaded with the white powder goes off on the application of a few drops of sulphuric acid (equally as well as with a light applied) to its touch hole.

This property of the gunpowder may possibly be applied to some advantage in the construction and preparation of bomb shells for long ranges. The shells would not explode (if filled with the white powder and containing a glass vessel with sulphuric acid) until they struck the object. No useless explosion of the shell could take place in the air, as is too often the case with the ordinary fusee shell.

Its expansive or explosive force is also twice that of common gunpowder. In all experiments performed with this white gunpowder care must be

278

^{*} By F. Hudson, Esq.