

The tenacity of fibre and flexibility of the leaves have led to their use for centuries for making ropes, sandals, baskets and ships' cables, and because they contain 56 per cent. by weight of fibre, or ten per cent. more than straw, they came into requisition as a substitute for linen rags in the manufacture of paper. About 200,000 tons of the fibre have been imported yearly into Great Britain during the past fifteen years, and its use continues to be maintained at about that rate, without, however, showing any tendency to increase.

Straw, de gras from Northern Africa, the leaves of the dwarf palm, sugar cane refuse, the stalks of the hop plant, nettles, the American thistle, peat and other articles have been successively or simultaneously experimented with in the hope of securing an ideal paper.

Bamboo cane has also been made the subject of experimentation.

Naturally those who were in search of a good material for the manufacture of fibre, reverting to the early employment of the palm tree for the purpose, began to experiment on other wood fibres.

In the year 1845, Keller took out a patent in Saxony for a process of manufacturing paper from ground wood. Before that date its pre-industrial history is known only to the chemist. After that date many improvements were made in the machinery and methods used in grinding, the main object being to produce a longer and finer fibre.

Business men soon began to realize that the students were on the right track. The chemists, thus encouraged, made a series of experiments to ascertain the best commercial way of reducing wood to a fibre capable of being made into paper. As a result of their investigations two methods have been selected, (1) mechanical treatment and (2) chemical treatment.

Practically by the mechanical treatment, which consists of grinding up the wood under water, a pulp has been obtained which answers for the inferior kind of paper.

But something more was wanted. Mechanical pulp