

"Kentucky and Missouri are the two leading States in which this crop has always been of considerable importance.

"Farmers generally complain of hemp that it is a hard crop to deal with, on account of the manual labour which it requires, but it is also urged that it is uncertain in its results because of the fluctuations of the market value. Its chief value is for cordage, bagging, and sail-cloth, but the fibre is very similar to that of flax; the ultimate cells are almost identical under the microscope, and it is applicable to the preparation of linen cloths. The manufacture of bagging and bale-rope in Kentucky having been mostly suspended, since the withdrawal or suspension of the demands of the cotton-fields, the extent of the crop has also been diminished, and the fibre has been largely worked into tow, and shipped in the bale to eastern and European factories.

"MACHINERY.

"When they were considering the subject of treating the flax-straw by any of the chemical operations to which it has been subjected for the purpose of aiding the separation and preparation of the fibres, whether these consisted of dew-rotting, water-rotting, or other more scientific or more elaborate processes, the commission endeavoured to set forth the great importance of a proper sub-division of labour, so that the farmer, with his manifold and pressing cares, might be relieved from the responsibility of conducting these delicate operations, for which, indeed, he is not always qualified. Here again we desire to urge upon those engaged in making arrangements for further treatment of the material by the mechanical handling of the straw, and its conversion into the beautiful fibre, the great advantage that will result from a separation of these duties from those appropriate to the farm. Indeed it is so apparent to us that the rotting and breaking of flax are truly manufacturing processes, required skillful labour and experienced management, that the continuance of their assignment to the farm labourer can only be viewed as a remnant of those peculiarities of the early stages of civilization which are here and there found to cling to us in an advanced condition of society. In former times the farmer, with the assistance of his family, was obliged to produce the raw material, to prepare it for manufacturing, to spin, and to weave it upon his own premises; but as we advance from such a primitive condition, the better subdivision of labour is progressively introduced, and we believe, as stated on a previous page, that the farmer's duty should always end with the harvesting of the crop, the separation of the seed, and the delivery of the straw to the manufacturer. In portions of Belgium, to which country we may well look for the highest degree of development in the preparation of flax, since there the finest fabrics are produced, we find that the ownership of the crop is transferred from the agriculturist to the manufacturer as soon as its prospective value can be safely estimated, and this is immediately after it has blossomed in the field; so that the farmer's duties and interests germinate at a still earlier period than that we have recommended to our countrymen.

"Notwithstanding our urgent desire for a proper subdivision of the labours of the production from those of the preparation of flax, and other textile plants, we know that in many parts of the country, where flax and hemp may be profitably grown by the farmer, the mechanic has not yet made his appearance with the needed machinery for operating upon the product. Indeed, the raw material is not to be found in sufficient quantities to justify the erection of large establishments for its preparation in many regions where it is and should be grown. Therefore we congratulate those isolated farmers who may be induced to cultivate this class of crops upon the fact that our ingenious mechanics have already provided for their wants by inventing and erecting farm machines, of moderate capacity and reasonable expense, which will enable individuals so situated to utilize their products, and put them into a condition that will bear transportation to market, or that will readily prepare them for home consumption.

"The most successful application of machinery to this subject that we have seen, is the arrangement of fluted rollers, with an oscillating motion backward and forward, but advancing more than it retrogrades. This is the Mallory & Sanford machine, which they call 'a portable flax and hemp dresser.' Owing to the peculiar form and motion of the rollers, the boon is crushed into shives of less than a quarter of an inch in length, and the harl is rubbed off from the straw with very little breaking of the filaments, while at the same time the shives are nearly all shaken out of the flax, which is broken and scutched at the same operation, and appears to need very little after scutching to finish it. This machine saves a great deal of fibre; indeed, there is scarcely any found with the shives, which are nearly clean, instead of being, as they are often seen, a tangled mass of filaments and shives about the brakes.

"The latest modification of this apparatus, wherein the rollers are arranged in a vertical series fed from above, was tested in the presence of the commission with very