

REPORT

Of the Committee on Agriculture on the petition of Anthony Dey and James Macdonald.

MARCH 12, 1822.

Read, and the resolution therein contained concurred in by the House.

The Committee on Agriculture, to which was referred the petition of Anthony Dey and James Macdonald.

REPORT:

The petition alleges, that the said Macdonald, at the expense of the said Dey, has invented and constructed a new and useful machine for breaking and cleaning of hemp and flax, in an unrotted state, and that the said Dey has discovered the means by which hemp and flax, after being cleaned in an unrotted state in their machine, may be bleached by a process hitherto unknown; that they believe their method of dressing hemp and flax is of very great importance to the agricultural interest of the country, and, therefore, ask an extension of the exclusive right to make, construct, use, and vend to others to be used, the said invention and discovery.

From the evidence adduced by the petitioners, it appears, that they have invented a machine for breaking and cleaning hemp and flax, in an unrotted state, which is different in its principles and construction from any machine that ever has been used for that purpose, and that the said Dey has also discovered a process, never before used, for bleaching hemp and flax after it has been dressed in an unrotted state. And, also, it appears by the certificates of respectable gentlemen, who have witnessed the operation of the machine, that it will, by the power of one horse, with the assistance of one man and three boys, separate the integument and wood from the fibrous part of the hemp and flax plants, and clean the same, at the rate of one pound in a fraction of time, even a minute, fit for bleaching.

The petitioners further assure us, from the operation of one machine by horse power, with the attendance of one man and three boys, from 1,600 to 2,000 lbs. of unrotted hemp, or flax, may be cleaned in a day, yielding from 400 to 500 lbs. after it is bleached; and that, by the addition of another machine, which can be moved by

the same horse, with the addition of one man and one boy more, from 800 to 1,000 lbs. may be cleaned at an expense not exceeding five dollars. And the Committee are informed by Mr. Dey that one man can bleach 350 lbs. of hemp or flax, after it has been cleaned by their machine, in a day, at an expense of one dollar and seventy-five cents for the article which he uses in the process.

From these calculations, it appears that any quantity of unrotted hemp or flax, taken from the field, where it is raised, may be broke, cleaned, and bleached, at a rate of less than two cents per pound, delivered in a bleached state; and, allowing one cent per pound for the plant, as it comes from the field, the whole cost, (except for the wear of the machine,) in growing this valuable plant, and breaking, cleaning, and bleaching it, will be less than six cents per pound. The Committee are not informed what the cost of hatcheling or combing it, (which is done after it is bleached,) and preparing it for the manufacturer, would be, but presume it will not exceed two cents per pound. If the information the Committee have received and their calculations are correct, either hemp or flax may be raised, dressed, and prepared for the best manufacture, at an expense of eight cents, and not exceeding, in any case, ten cents, per pound.

By the experiments of the petitioners, and others, it is found that flax, dressed and hatcheled in the ordinary way, after it has been dew-rotted, yields nine pounds from one hundred pounds of the plant which has been rotted, being sixteen pounds less than is produced from one hundred pounds of unrotted flax, cleaned and bleached by the method which the petitioners have discovered. But no experiments have yet been made to determine the difference in the weight of the plant, before and after it is rotted; therefore, it cannot now be ascertained how much will be saved, in quantity, by this method of breaking and cleaning it before it is rotted. It cannot, however, be doubted, that the common process of rotting flax, especially by dew, destroys or injures many of its fibres, and, of course, the quality, as well as the quantity, must be, in some degree, diminished.

The committee have examined the machine, and have seen it operate, and believe it will prove one of the most important and valuable discoveries. The committee have, also, examined the hemp and flax which has been bleached in this new method and hatcheled, and find that the colored matter and harshness of the fibres are removed, and that the flax is rendered very white, and as soft and fine as silk. This method of bleaching hemp and flax, it is believed, will be of great value to the grower and manufacturer of these plants.

Considering hemp and flax among the most valuable plants which can be cultivated in this country, and believing there is an abundance of soil in every state in the Union which is well adapted to their culture and growth, the committee are highly pleased with the invention and discovery of the petitioners. If hemp and flax can be raised in this country as easily and as cheap as in any other, and these inventions should prove as valuable as the committee believe they may, the

cultivation of these plants will engage the attention of a large portion of the agriculturists, and become exceedingly important to the United States. It may be seen by the statement of the Secretary of the Treasury, of the quantity and value of merchandise imported, that, during the year ending on the 30th September, 1821, 86,192 cwt. of hemp, valued at \$510,489 (being about \$120 per ton) hempen goods, of the value of \$226,174; duck and sheeting, of the value of \$894,276; cordage, of the value of \$107,867; and linens, bleached and unbleached, of the value of \$2,564,159, were imported into this country, amounting to \$4,302,963, and that the whole value of the exports of domestic and foreign produce of the same kind, amounted only to \$822,976, leaving the value of \$3,479,187 in the merchandise produced from the hemp and flax plants to be consumed in this country.

As the petitioners desire an extension of time, and further protection than is secured by the patent law in its present form, and as it is the peculiar province of the Committee on the Judiciary to report any revision or amendment of that law which may be deemed necessary, your committee recommend the adoption of the following resolution:

Resolved, That the Committee on Agriculture be discharged from the further consideration of the petition of Anthony Dey and James Macdonald, and that it be referred to the Committee on the Judiciary.

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