posed method or process of thus staying the box begins and ends with the applying of the stay to the corners of the box. It is impossible to carry that process or method back so as to embrace or include the steps which may be taken to prepare the stays. As well might it be attempted to claim a method for strengthening or staying the corners of the box by nails by beginning with the origin of the nails, their manufacture and form, following them through the devious processes of manufacture, and alleging that those various steps were steps in the process of strengthening and staying the box into which the nails were driven.

The action of the Examiners-in-Chief is affirmed.

EX PARTE LATIMER.

Decided March 12, 1889.

46 O. G., 1638.

1. PRODUCT OF NATURE UNCHANGED BY PROCESS NOT PATENTABLE.

A product of nature, although conceded to be valuable and useful, such as fiber which is procured, derived, or freed from a certain species of pine by means of a new and novel process for which patent has been granted to applicant, *Held* to be not such a patentable invention as is required by the statute.

2. SAME.

The product has not been affected, changed, or altered by the process, and whatever there is of invention resides in or consists of the process itself, by which the fiber can be taken from the natural sheath or membrane of the leaf or pineneedle in which it has been developed or produced by the processes of nature.

3. SAME.

A contrary ruling would result in granting to one inventor the exclusive use of one species of fiber, and so on, successively, patents might be obtained upon the fibers of the various trees of the forest and the plants of the earth which, because being natural products, are no more the subjects of patents when eliminated from their surroundings than wheat which has been cut by some new method of reaping can be patented as wheat cut by such a process.

APPEAL from Examiners-in-Chief.

FIBERS.

APPLICATION of William Latimer filed December 10,1888, No. 293,067. Messrs. Munn & Co. for the applicant.

HALL, Commissioner:

Applicant appeals from the Examiners-in-Chief upon the following claim:

As a new article of manufacture the fiber herein described, consisting of the cellular tissues of the *Pinus australis* eliminated in full lengths from the silicious, resinous, and pulpy parts of the pine-needles and subdivided into long, pliant filaments adapted to be spun and woven, as described.

In the original rejection a patent to Adolph Roque, January 1, 1867, No. 60,940, and also a publication contained in the *Franklin Journal*, vol. 54, pp. 412-414, are cited.

The Examiner held:

The claim and description do not set forth any physical characteristics by which the fiber can be distinguished from other vegetable fibers. The material out of which the fiber is made does not constitute a physical characteristic, nor does the length of the fiber distinguish it from the fiber produced from other vegetable substances, although it may from those derived from other species of pine. Hence, since the fiber claimed is not, and cannot be, distinguished from other fibers by any physical characteristic, the claim therefor must be refused. (See Cochrane v. Badische Anilin and Soda Fabrik, 27 O. G., 813.)

The claim is also refused, as the fiber produced from any vegetable substance does not differ from other vegetable fibers and is not the subject for patent protection. This exact question, so far as the examiner is aware, has never been considered by the courts or by Commissioners; but analogous cases are found in paper-pulp made from various substances, which, as products, have been declared not to be patentable by the Commissioner in ex parte Sturgis, (MS. Dec., vol. 2, 145,) and ex parte Cushman, (MS. Dec., vol. 2, 64,) and by the Supreme Court in The American Wood Paper Co. v. The Fiber Disintegrating Co., (23 Wall, 566, 593.)

After the case had been appealed to the Examiners-in-Chief it appears that applicant submitted to them a number of additional affidavits relative to the character and quality of the fiber produced by his process. The senior member of the Examiners-in-Chief, after intimating that the flax produced from the needle of the *Pinus australis* was patentable, and that the views of the Examiner, in so far as he held that such a fiber was not patentable per se, were erroneous, and, doubting the applicability of The American Wood Paper Co v. The Fiber Disintegrating Co. to the question, remanded the application to the Primary Examiner, in order that he might take original jurisdiction of the application again with the new affidavits as a part of the record and make such action therein as he might see proper.

The Primary Examiner thereupon, having considered the evidence submitted through the order of the Examiner in Chief, returned the case to the Board with an affirmance of his former action. The majority of the Examiners in Chief then affirmed the action of the Primary Examiner, holding:

We are also of the opinion that the said references furnish a substantial anticipation of the supposed new article of manufacture, and must therefore affirm the Examiner's decision in refusal of the patent.

The references referred to are those originally given, viz: patent to Adolph Roque, No. 69,940, and the disclosure contained in the *Franklin Journal*.

The senior member of the Board entertained a doubt as to whether the invention was properly anticipated by these references, and held that the doubt should be resolved in favor of the applicant and the decision of the Examiner reversed. Applicant, by appeal from the decision of the majority of the Examiners-in-Chief, has now brought the case before the Commissioner for his consideration.

Applicant has filed two applications, one for the process by which the fiber in question is taken from the needles of the Pinus australis, the other for the product itself. He has obtained a patent for his process, but his claim for the product has, as above stated, been rejected. What is this product which applicant claims? It is not asserted or pretended in the present application that the product, which is the result of applicant's process, is in any manner affected or produced by the process, or that its natural condition as a fiber has in any wise been affected, changed, or altered. Fiber, whether of plants—such as hemp, flax, cotton—or of the leaves of trees—such as the Pinus sylvestris—or of the wood of trees and shrubs, is a well known material, the knowledge of which is almost coextensive with the human family. It has been employed from time im memorial in the manufacture of threads, cordage, fabrics, and textiles It is also well known that the pure fiber after it has been eliminated from the natural matrix of the leaf or stalk or wood in which nature forms and develops it is essentially the same thing and possesses the same construction. The chemical formula for this cellulose in all these varieties of plants, I am advised, is the same. The different fibers differ in characteristics as to length, strength, fineness, &c.; but these differences are not at all due to the processes by which they are removed from the matrices in which they have grown, but to the process of nature in developing and growing them. The fiber of the needle of the Pinus australis grows from ten to twenty inches, while that of the leaf of the Pinus sylvestris is only three, four, or five inches in length, and this is true for precisely the same reason that the needle itself of the one is much longer than the leaf of the other. Nature made them so and not the process by which they are taken from the leaf or the needle.

It cannot be said that the applicant in this case has made any discovery, or is entitled to patent the idea, or fact, rather, that fiber can be found in the needle of the Pinus australis, or that it is a longer fiber than can be found in other leaves, or that it possesses more or less strength or fineness, because the mere ascertaining of the character or quality of trees that grow in the forest and the construction of the woody fiber and tissue of which they are composed is not a patentable invention, recognized by the statute, any more than to find a new gem or jewel in the earth would entitle the discoverer to patent all gems which should be subsequently found, so that generally it may be said that fiber such as is described in this application is old, and even if such were not the fact and this were the first time that man had discovered that a fiber existed in the leaves and needles of the trees which could be removed by certain processes and made useful for mankind, it is doubtful whether the invention would consist of anything more than the process by which the fiber could be taken from the natural leaf or needle in which it is produced by natural processes. Otherwise it would be possible for an element or a principle to be secured by patent, and the patentee would obtain the right, to the exclusion of all other men, of securing by his

new process from the trees of the forest (in this case the *Pinus australis*) the fiber which nature has produced and which nature has intended to be equally for the use of all men. The result would be that an alleged inventor in Germany would acquire a patent which would give him the exclusive use of the *Pinus sylvestris*, the applicant in this case would secure a patent for the fiber of the *Pinus australis*, and thus, successively, patents might be obtained upon the trees of the forest and the plants of the earth, which of course would be unreasonable and impossible.

The references cited by the examiner show that the fiber of the leaves of the *Pinus sylvestris* has been taken from the leaves by a process very similar to that employed by applicant, although not identical with it. The fiber in all these cases is located within the external sheath or membrane of the leaf or needle, the intermediate space between the sheath and fiber being filled with resinous matter, and the intercellular spaces of the fiber itself being also filled with resinous matter. It order to obtain the fiber it is necessary to disintegrate and remove the material constituting the sheath, and also the resinous matter, and wash it entirely away, leaving the perfect and natural structure of the fiber free. This is accomplished by the process; but the fiber, when it is made free, is in nowise changed or different from its natural construction. is no chemical combination effected by the treatment which frees it by which the fiber becomes something new or different from the fiber in its natural state. No chemical combination occurs or is alleged to occur by which the fiber is rendered stronger or possesses any new feature or characteristic, so that in selecting and obtaining this fiber from the trees the applicant has done little more than one who gathers the pebbles along the seashore, where the forces of nature have placed them. In the latter case the action of the waves has freed the pebbles from their surroundings or covering as in the former the applicant frees the fiber by his process. The invention resides wholly and exclusively in the process which enables him to procure the fiber in its natural free state. These views, I think, are well established by the decisions cited by the senior officer of the Examiners-in-Chief. In his opinion he says:

If a new article be produced by a new process from a sow's ear or potato-vine presenting a new stock for weaving or knitting into cloths or garments, it is essentially a new "manufacture" within the law.

I refer to this statement because it is a strong one, but, in my judgment, improperly applied to the conditions of this case. Unquestionably if the constituents of the ear or any portion of the stalk were to be treated so as to form a new material—for instance, a mucilaginous substance which could be drawn out into twine, and, by being dried, become a strong, flexible twine—such article would be a new and useful product. The reason is that a new form has been produced, made out of the changed material and construction of matter in the flesh, and this new form is useful; but if there were within the ear a bone and the result of the process was to remove that bone in its natural condi-

tion, or, if the new process were to remove the bristles growing upon the ear, it is evident that the bone or the bristles, when removed by a new process, would still be the same bone or bristles which had formerly been removed by the knife or by the hand, and while the process itself might be new the product would be old and therefore not patentable. So in the present case the fiber not only is old, as shown by the citations made by the Primary Examiner, but it is a natural product and can no more be the subject of a patent in its natural state when freed from its surroundings than wheat which has been cut by a reaper or by some new method of reaping can be patented as wheat cut by such a process.

I have given this application no little consideration, and have experienced an anxiety, if possible, to secure to the applicant a patent. The alleged invention is unquestionably very valuable, and one, according to the statements presented to me, of immense benefit to the people of the country in which the *Pinus australis* grows. The fiber, it is said, is stronger, more durable, and can be produced at much less expense than jute, and will undoubtedly supersede that article in the manufacture of many fabrics; but while the production may be thus regarded as a very valuable one, the invention resides, I am compelled to say, exclusively in the process and not at all in the product.

If applicant's process had another final step by which the fiber thus withdrawn or separated from the leaf or needle in its natural state were changed, either by curling it or giving it some new quality or function which it does not possess in its natural condition as fiber, the invention would probably cover a product, because the natural fiber, passing through the exigencies of such a process would be treated and become something new or different from what it is in its natural state. Natural fibers, hair, and many other substances have been allowed as patentable products which have been changed by some such treatment; but I am not aware of any instance in which it has been held that a natural product is the subject of a patent, although it may have existed from creation without being discovered.

I think the authorities cited by the Examiner fully support these propositions, and therefor affirm the decision of the Examiners-in-Chief

BEARDSLEE v. MOESLEIN.

Decided March 16, 1889.

46 O. G., 1640.

1. A patentee involved in interference who refuse to take testimony, relying upon his record dates, and rested his case upon the weakness of his adversary's presentation rather than upon the strength of his own, will not be permitted, after testing the opinion of all the tribunals in the Office and after final decision, to have the case reopened on the ground "that the public interests require an investigation as to prior knowledge or use, and that two patents ought not to issue for the same invention."