

Abstract from the Congressional Annual Report of the Hon. R. H. Buell, Commissioner of Patents, for the Year Ending December 31, 1875.

Table with financial and business statistics for the Patent Office in 1875, including money received, balance to credit of Patent Fund, and a statement of business.

Table showing a comparative statement of the business of the Patent Office from 1837 to 1875, with columns for Year, Applications, Patents issued, Cash received, and Cash expended.

THE CENTENNIAL.

The Patent Office is to be represented at the Centennial celebration, and a space of 10,000 square feet has been assigned for the exhibition of models of American inventions.

MANUFACTURES OF AGRICULTURAL IMPLEMENTS.

In referring to the census, under the head of "manufactories in operation in 1870, exclusively for agricultural implements," it is found that—

Table listing manufacturing statistics for agricultural implements in 1870, including establishments, steam engines, horse power, and wages.

The census shows an increase of \$34,578,825 in the value of agricultural implements manufactured over the amount reported in 1860.

The following are the products of agricultural implements of the manufactories first above referred to, being the articles manufactured and number made:

Table listing various agricultural implements such as cane mills, horse rakes, mowers, reapers, and their respective quantities.

PATENTS FOR AGRICULTURAL IMPLEMENTS.

For the articles above enumerated, there have been granted between the years 1790 and 1873, inclusive—that is to say, since the organization of this Office (1790)—the following patents:

Table listing agricultural patents from 1790 to 1873, including items like horse rakes, mowers, reapers, and their patent numbers.

MISCELLANEOUS AMERICAN PATENTS.

These indicate the scope and versatility of the inventive genius of our country, and all enter more or less into the "mechanical and manufacturing industries" that have been referred to.

Table listing miscellaneous American patents from 1856 to 1875, covering various mechanical and manufacturing inventions.

Summary table of patent statistics: Total number of patents issued since 1836 (171,640), Total number of reissues (6,830), Total number of designs (8,883), Total number of trade marks (3,287), Total number of labels (464).

In presenting this annual report, the Commissioner makes several suggestions and recommendations for the improvement of business facilities at the Patent Office.

- 1. To the corps of one hundred examiners now employed, he asks for an addition of twelve more examiners.
2. He suggests that all decisions of the courts shall be published in the Official Gazette.
3. The publication of the back patents—those granted between 1836 and 1871—is urgently called for.
4. The improvement of the Patent Office library.
5. The necessity of enlarging the Patent Office is conclusively shown.

DECISIONS OF THE COURTS.

Supreme Court of the United States.

THE GREEN CORN PATENTS.—RUFUS K. SEWELL, ADMINISTRATOR OF HENRY CLARK, DECEDENT, APPELLANT, VS. JOHN WINSLOW JONES ET AL.—APPEAL FROM THE CIRCUIT COURT OF THE UNITED STATES FOR THE DISTRICT OF MAINE.—OCTOBER, 1875.

To entitle a plaintiff to recover for the violation of a patent, he must be the original inventor, not only in relation to the United States, but to other parts of the world. Even if the plaintiff did not know that the discovery had been made before, still he cannot recover if it has been in use or described in public prints, and if he be not, in truth, the original inventor.

When the inventor says: "I recommend the following method," he does not thereby constitute such method a portion of his patent. Appert's process, embodied in the Durand patent of 1810, contains every thing of value that is contained in Winslow's patent, through whom the appert claim.

Mr. Justice HUNT delivered the opinion of the court: Jones, as assignee of four several patents for a new and useful improvement in preserving Indian corn, brought his action against Clark, the original defendant, alleging infringements of the same.

The first objection made to the patents is the want of novelty. It is contended that they were anticipated by the Appert process embodied in the Durand patent of 1810; also by the patent of Gunther, of 1841, and by that of Wertheimer, of 1842. It is an elementary proposition in patent law that, to entitle a plaintiff to recover for the violation of a patent, he must be the original inventor, not only in relation to the United States, but to other parts of the world.

Durand's patent is described in his specification, enrolled in the English Court of Chancery, as based "upon an invention communicated to him by a certain foreigner, residing abroad, of the manner of preserving animal food, vegetable food, and other perishable articles a long time from perishing or becoming use, and in the manner in which the same is to be performed, he says: 1. 'I place the said food or articles in bottles of glass, pottery, tin, or other metals or fit materials, and I close the aperture so as completely to cut off or exclude all communication with the external air,' and he describes the various means of effecting that purpose.

2. 'When the vessels are thus charged and well closed, I place them in a boiler, each separately surrounded with straw or wrapped in a coarse cloth, or otherwise defended from striking against each other. I fill the boiler so as to cover the vessels with cold water, which I gradually heat to boiling, and continue the ebullition for a certain time, which must depend upon the nature of the substances included in the vessels, and the size of the vessels, and other obnoxious circumstances, which will be readily apprehended by the operator. Vegetable substances are to be put into the vessel in a raw or crude state, and animal substances partly or half cooked, although these may also be put in raw.'

The specification then declares that the inventor did avail himself of the application of heat by placing the vessel in an oven, stove, steam bath, or other fit situation for gradually and uniformly raising the temperature and suffering it to cool again, and that as the choice of the consumer, of a curved or of a straight vessel, or of a small portion thereof, open until the effect of the heat shall have taken place, at which period the same is to be closed.

The points following are embraced in this patent: 1. It is for the purpose of preserving for a long time animal or vegetable food. 2. The articles to be preserved are to be placed in tin or other vessels, so arranged as to exclude communication with the external air.

3. An aperture may be left in the vessel, at the choice of the operator, until the effect of the heat shall have taken place, when it is to be closed. 4. The vessels, thus prepared, are placed in a boiler filled with cold water, which is heated to a boiling point, which boiling shall be continued for such time as shall be required by the substances contained in the vessels.

5. Although a water bath is preferred, the inventor declares he avails himself of heat through an oven, stove, steam bath, or any other situation fit for gradually raising the temperature and suffering it to cool again. 6. Vegetables are to be put into the vessels in a raw or crude state; animal substances, raw or partly cooked.

7. The invention is general in its terms, embracing all vegetables and all animal substances capable of being thus dealt with. Winslow's patent of April 8, 1862, No. 34,928, is declared to be for an improvement in preserving Indian corn in the green state.

The letters patent declare that the first success of the inventor was obtained by the following process: The kernels being removed from the cob were immediately packed in cans hermetically sealed, so as to prevent the escape of the natural aroma of the corn, or of the milk or other juices of the same. I then submitted the sealed cans and their contents to boiling or steam heat for about four hours. * * * By this method of cooking green corn in the vapor of its juices the ends of the cans are bulged out. Strong cans are required, and dealers are likely to be prejudiced against corn thus put up. I recommend the following method: Select a superior quality of green corn in the green state, and as the choice of the consumer, of a curved or of a straight vessel, or of a small portion thereof, open until the effect of the heat shall have taken place, at which period the same is to be closed.

Let us now state the points embraced in this the plaintiff's patent, and compare them with the points heretofore stated as included in the Durand patent.

1. Winslow's declared object is the preservation of Indian corn in the green state. Durand's is for preserving Indian corn not only, but all vegetable substances in their raw or crude state.

2. Winslow recommends removing the kernels from the cob before the process of preservation is commenced, placing the kernels in cans, sealing them, and exposing them to heat. Durand, not limiting himself to the article of corn, provides that the articles to be preserved shall be placed in cans, and subjected to heat in the same manner. He does not stipulate or recommend that the article shall be first removed from the cob, the vine, the twig, or whatever may be the natural support of the vegetable to be preserved, as the corn from the cob, the pea from its pod, the grape or tomato from its vine, the peach from its stem, the berry from its stalk.

3. Winslow directs that the kernels shall be subjected to the heat for a period of about one and a half hours before puncturing, and for about two and a half hours after the puncturing. The double use of the word "about" indicates that the time is not to be considered as precisely specified. Durand directs that the boiling shall continue for such length of time as shall be required by the particular substances contained in the vessel. Corn, peas, tomatoes, peaches, berries, asparagus, may very likely require great difference in the time in which the heat shall be applied to produce the required effect. In each case that is to be the measure of the time.

Winslow says other modes may be adopted so long as hermetical sealing and the use of heat are so managed as to secure the aroma and fresh flavor and prevent putrefaction. Durand declares that he intends to include in his patent heat through an oven, stove, steam, or any other situation by which the temperature is gradually raised and suffered to cool again.

The same idea is put forth at the close of Winslow's specification, where he declares that what he claims by his patent is the manufacture of Indian corn in its green state, the kernels being removed from the cob, hermetically sealed, and heated.

We are of the opinion that the substance of all that is found in Winslow's patent had, nearly a half a century before he obtained his patent, been put forth in Durand's patent. If Durand's patent were now in force in this country, and a suit brought upon it against Jones, the claimant under Winslow, for an infringement, the right to recover could not be resisted. Durand would show a patent intended to effect the same purpose, to wit, the preservation of vegetables for a long time, employing the same process, to wit, the effect of heat upon vegetables placed in a metallic vessel, the gradual cooling of the same, hermetically sealed after puncture to allow the escape of gases. This is also Winslow's process.

To constitute an infringement, the thing used by the defendant must be such as substantially to embody the patentee's mode of operation, and thereby to attain the same kind of result as was reached by his invention. It is not necessary that the defendant should employ the plaintiff's invention to as good advantage as he employed it, or that the result should be the same in degree, but it must be the same in kind. (Winans vs. Denmead, 15 How. 330.)

To infringe a patent it is not necessary that the thing patented should be adopted in every particular. If the patent is adopted substantially by the defendants they are guilty of infringement. (Root vs. Ball, 4 McLean, 177; Alden vs. Denny, 1 Story, C. C. R., 336.)

In an action for infringement the first question is whether the machine used by the defendant is substantially in its principle and mode of operation like the plaintiff's. If so, it is an infringement to use it. (Howe vs. Abbott, 2 Story, C. C.; 190, Parker vs. Hanth, 4 McLean, 370.)

If he has taken the same plan and applied it to the same purpose, notwithstanding he may have varied the process of the application, his manufacture will be substantially identical with that of the patentee. (Curtis, 532.)

The discovery in question has been of immense benefit to mankind. By means of food preserved in a compact and nutritious form, protected from its natural tendency to decay, deserts are traversed, seas navigated, distant regions explored. It is less brilliant, but more useful than all the inventions for the destruction of the human race that have ever been known. It is to France that the honor of this discovery belongs, and to Appert, a French citizen, it does not belong to America or to Winslow. Appert's process presents all that we now know upon the subject. It contains absolutely everything of value that is contained in Winslow's patent.

Other grave questions are presented by the record before us. We are satisfied, however, to place our decision upon the ground that the want of novelty in the patents of Winslow is fatal to the plaintiff's right of recovery. We do not discuss the other questions.

The decree of the court below must be reversed, and judgment ordered in favor of the defendant below.

NEW BOOKS AND PUBLICATIONS.

REPORT ON THE COMPRESSIVE STRENGTH, SPECIFIC GRAVITY, AND RATIO OF ABSORPTION OF THE BUILDING STONES IN THE UNITED STATES. By O. A. Gillmore, Lieutenant-Colonel of the Corps of Engineers, Author of "A Treatise on Limes, Cements, etc." New York city: D. Van Nostrand, 23 Murray and 27 Warren streets.

This book contains Lieutenant-Colonel Gillmore's official report, to the Chief of Engineers of the United States Army, on a series of tests which were partly reported on to the end of July, 1874. The present volume carries the investigation one year further, and gives some very valuable and interesting facts and information, which, taking into consideration the rapid growth of the use of artificial stone, is of the highest practical importance.

DIGEST OF OPINIONS OF THE JUDGE ADVOCATE GENERAL OF THE ARMY, containing a Selection of Official Opinions furnished between September, 1862, and July, 1868. Edited by Major W. Winthrop, Judge Advocate. Washington, D. C.: Government Printing Office.

The scope of this work is fully set forth in its title, and it will be found a useful reference book by the legal profession.

REPORT ON THE HYGIENE OF THE UNITED STATES ARMY, with Descriptions of Military Posts. Washington, D. C.: Government Printing Office.

A voluminous document, containing information down to the end of the year 1874.

JAMES W. TUFTS' CATALOGUE OF SODA WATER APPARATUS. Boston, Mass.

A handsome volume, superbly illustrated.

DYNAMOMETER EXPERIMENTS ON SPINNING FLAX. By E. Comut, Chief Engineer of the Association of Steam Power Proprietors of Northern France. Lille, France: L. Danel.

An interesting little treatise, of great practical value.

Recent American and Foreign Patents.

NEW MECHANICAL AND ENGINEERING INVENTIONS.

IMPROVED STOPPING MECHANISM FOR SPINNING JACKS. William W. Sinclair and Edward Galvin, Motville, N. Y.—This invention consists of automatic mechanism for throwing off the driving belt of a spinning jack in case the squaring band breaks or fails to act. The shifter lever has a strong spring attached to it for throwing it when released by the failure of the squaring band. The said spring is held distended, ready for action, by the shifter lever itself, which is lodged in a notch in a frame piece, and is tripped by a sliding cam rod when the band fails, and throws the belt shifter.

IMPROVED WIND POWER. Timothy C. Guthery, Freedom, Ind.—This invention relates to an improvement upon the wind wheel covered by patent No. 91,457, and consists in mounting the wheel upon a shaft having its bearings in a rotating bar, to whose upper end a vane is rigidly attached. The object is to render the device simpler and less expensive.

IMPROVED AUTOMATIC WASTE PIPE CLOSING ATTACHMENT. F. Philip Bourne, Brooklyn, N. Y.—The object of this invention is to furnish an improved attachment for waste pipes, so constructed as to prevent the escape of gases, odors, etc.; and it consists in the combination of a valve chamber or box, bottom plate, chambered top plate, pipes, pivoted valve, pivoted valve plate, and weight with each other, so arranged as, when the waste water is admitted into the pipe in sufficient quantity to overbalance the downward pressure of the weight, the valve will be lowered into an inclined position, allowing the wastewater to flow into the pipe. As soon as so much of the water has run out that the weight of that remaining will be overbalanced by the weight, the valve will close. The valve will always have a small quantity of water above it, and will thus effectually prevent the escape of any gas or odor from the waste pipe.

