

Scientific American

NEW YORK, NOVEMBER 2, 1850.

Commissioner of Patents' Report.

Part first of this Report, on the Arts and Manufactures, is at last published in a very handsome volume; by it we learn that 1,076 patents, including 30 re-issues, 5 additional improvements and 49 designs, were granted: five hundred and ninety-five caveats were filed. There were nineteen hundred and fifty-five applications, consequently eight hundred and seventy-nine rejections—nearly as many as the patents granted. The receipts of the Patent Office amounted to \$80,725 78; the expenditures, &c., to \$77,716 44. There are now in the Treasury \$169,505 17. The amount added to the standing fund is small in comparison with previous years; good reasons are given for the increase of expenditure, by the number of rejections, and consequent withdrawal of the "two-thirds patent fee." One part of the Report states that there were 1,409 rejections last year; this, with 1,076 patents issued would make 2,485 applications—there seems to be a little discrepancy in this, perhaps a typographical error.

The Commissioner speaks forcibly respecting the wrongs suffered by inventors and patentees, in being plundered of their just rights by patent pirates. He proposes that rejected applicants should not be allowed the return fee of \$30, but forfeit \$20. The reasons for this, he states to be the actual expense of examination, "which, on an average, is much more than the sum of \$10, which deficiency must be made up by others." Thus, he says, "the quasi inventor who has given nothing to the arts fails to pay his proportion to the Office, while the real inventor is required to make up the deficiency. It not unfrequently happens that the Office is speculated upon by inventors and agents with regard to examinations. They find it (as some have admitted) cheaper to give to the Office ten dollars for the investigation of a case, than to purchase the necessary books and examine for themselves. By this means an amount of labor is involved, costing the Office, in almost every case, more than the amount received." The Report also recommends that only \$10 of the caveat fee be allowed on the Patent fee—thus making the applicant pay \$10 for the filing of the caveat—in other words, his privilege. It is also recommended that patentees, for additional improvements to their patent, be charged \$30, instead of \$15. The raising of the fee of \$15 to \$30 for re-issues, is also recommended. The Report speaks strongly against granting patents to any but original inventors as recommended by some, and as is the practice in Britain; but he makes an exception to secret processes of foreign manufacture, not new in the country where they are employed, and not the property of any individual.

Four amendments are thus recommended to be made in the Patent Laws. All these relate to the fees of the Patent Office, every one of which is for an increase, viz., an increase of \$10 for rejection fees, \$10 for caveat fees, \$15 for improvements, and the same for re-issues. It is no doubt true that the Patent Office is oftentimes subjected to a tedious correspondence, which amounts to more than the Patent fee, or the \$10 of a rejected application; but the fault as often, if not oftener, belongs to the Patent Office, not the applicants for patents. We expected some sympathy expressed for inventors and the way many of them have been badgered by the Patent Office, but there is no word of condolence pervading it from beginning to end. We know one inventor who was put to the expense of \$3,000 by a wrong decision of the Patent Office. It is the privilege of the Patent Office, because sheltered by law, that it only suffers a little extra trouble in cases of controversy, but the applicants are always subjected to great expense. We do not think that there would be many objections to raising the fees as recommended by the Commissioner, if applicants were satisfied that examinations were made candidly and thorough-

ly, correct decisions given, and full and proper references submitted to rejected applicants. A reform in this respect is certainly much needed, and it requires no new law, but the enforcement of measures under the control of the Commissioner himself.

The Report is a very excellent one, as a whole, and will form the subject of more articles in future numbers.

A Hint to Subscribers.

If each of our subscribers who receive their numbers in single wrappers would exert their influence to procure one or more subscribers, they would all receive their papers every week in a much better condition than they now do. Where there is but one paper directed to a post office, singly, it is sent in a single wrapper and folded smaller than when two or more are sent to the same place, consequently it is much wrinkled, and sometimes it possibly goes astray in the post office. All our packages of papers are made up in large stout wrappers, with a slip around each paper, neatly folded. A package seldom goes astray; and each paper is neatly preserved for filing away. The Scientific American is worth preserving and binding at the end of each volume. Subscribers who preserve their numbers in good condition, have a good volume—one worth twice the amount of subscription price.

It would require no great effort of our subscribers to accomplish the object we thus respectfully set before them. We employ no travelling agents to get subscribers, we have always trusted in the merits of our paper and the good will of our subscribers for our circulation. We have never yet trusted in vain—and we believe that our request will be met with a hearty response. Every subscriber may, with no little confidence and zeal, press a friend to subscribe, for assuredly this present volume will be far superior to all its predecessors.

The History of Propellers and Steam Navigation, which we have offered as a premium for three or more subscribers, is now ready, and is certainly worth obtaining. The price of this book is 75 cents; it contains 82 illustrations and 144 pages of fine letter press, descriptive of the subject. More than 500 copies of this book have been distributed during the past week to those who were entitled to receive them for obtaining clubs. We have a large number yet to distribute. Those who avail themselves of this premium have not only got a good book, but also get their papers in better condition every week, and full clubs get their papers at a great reduction of price. These are things worthy of consideration, and can be obtained by almost every one of our subscribers.

The Russ Pavement.

The constant smoothing of the Russ pavement by the wear of vehicles has rendered it difficult for horses to keep their feet upon it. Many horses have fallen on the pavement opposite the Park, and attention has been directed to the search of a remedy for the evil.

[The above is from an exchange. The remedy is to lay no more of such large block pavements, but to use small six inch wide blocks for new pavements, and to employ men at an enormous expense to roughen the present pavement by pick hammers. We pointed out the evils of the large blocks, long ago; the public are beginning to find out the truthfulness of what we said about the said pavement, wrongfully termed Russ. The evils of the said pavement are not yet fully developed either; wait till the blocks get perfectly smooth, and then it will scarcely be possible for horses to travel over them.]

War Against Machinery.

The journeymen Stone Cutters Association of the cities of New York, Brooklyn, Jersey and Williamsburg have passed resolutions that no member will work on any stone of the same quarry that supplies steam manufactories in New York for cutting or sawing Brown Stone. One resolution is a request that the stone cutters of Philadelphia and Boston will send a strong remonstrance to the quarrymen, and to aid and abet their "trice holy cause," as they term it. The journeymen

stone cutters of this Association number 900, and they have pledged themselves individually not to work any stone that is got in the same quarry that supplies machines for cutting stone.

We exceedingly regret that any body of men is to be found, in this day, to pass such unwise resolutions. That they have a perfect right to do so, no one will question, but the experience of the past might have taught them better. If machinery can do their work, cheaper and as well, their occupation is gone, it makes no matter how strong they are in numbers, or how many resolutions they may pass. The first spinning jennies and power looms were broken by mobs, but neither the hand spinners nor weavers could arrest the progress of machine labor. We look upon every improvement in machinery in the light of a general benefit.

Invention in the Sugar Manufacture.

The "Sun" gives a description of a new invention for graining sugar, which has been purchased by Messrs. Howland & Woolsey, (the latter a well-known sugar manufacturer,) and is thus described:

"The sugar is taken in its black, dirty state, just as it comes from the planters' boilers, thrown into the machine, and in a twinkling the refuse stuff is separated from the mass, leaving the clean, white, sparkling sugar alone by itself, ready for family use. In two minutes the refining is completed, which, by the usual mode, required three weeks of time, the employment of many hands and the consumption of much fuel. In this new process no heat is required.

The invention is one of remarkable ingenuity and certainty in its operations. The sugar to be refined is mixed with molasses, until it is of a semi-fluid consistency. The mass is then placed within a revolving sieve, the wires of which are so fine as to retain the sugar but permitting the exit of the liquid parts. By means of steam power the tremendous velocity of two thousand revolutions per minute is given to the sieve, and so great is the centrifugal force thus applied to the mixture within, that the molasses and impurities instantly fly off, leaving the sugar behind, purified, white, and, what seems singular, perfectly dry. The article thus produced is what is generally known as refined brown sugar. It resembles powdered loaf sugar, and needs but one more operation to convert it into the loaf. The entire machine occupies but little more space than a good sized wash tub."

The first of these machines ever produced on a practical scale in this country, has recently been constructed at the large machine works of our old friend Mr. G. B. Hartson, Nos. 58 and 60 Vesey street; it is of a capacity to refine 200 lbs. of sugar in two minutes.

The idea never would have struck us, that, by giving sugar syrup a rapid centrifugal motion, the moisture alone would be thrown off, and the grain crystalized and refined. We do not yet see how it can be purified by this operation. A machine for drying and depurating sugar by steam and centrifugal motion, is illustrated and described in No. 41 Vol. 5, Sci. American. Centrifugal motion and its virtues were first displayed in a revolving machine for drying cloth, (one was patented by Mr. Nelson Chaffee, of Conn., two years ago,) it has been applied to moulding metal pipe, and now it is applied to the manufacture of sugar.

Belts of Machinery.

MR. EDITOR:—Some of your numerous readers in our city have had some discussion as to whether the thickness of a belt can make any difference in the speed of a machine:—some of us contend that, of necessity, it does make a difference; while others, some of whom are quite celebrated for mathematical acumen, stoutly contend that the thickness of the belt can have no effect on the speed whatever. Will you give your views on this point? Suppose, for example, a machine driven with a belt $\frac{1}{2}$ of an inch in thickness, the driving pulley 20 inches in diameter, and the driver 10 inches diameter; would the speed be the same if the belt was eight times as thick? If the thickness does make a difference, how should we measure, in order to calculate? on the out-

side, or centre of the belt, or where? E.B.M. Manchester, N. H., Oct. 19, 1850.

[There is only one way to settle the question, and that is, to that the difference between a thick and thin belt by a "dynamometer" applied to the driven shaft. The question "thick and thin belt," is not correct, but say belts of 1-10, 1-8, 1-6, 1-4, inches thick. A belt over a certain thickness will be too stiff and slip, and one too thin will stretch and slip; the grand question is, "what is the right thickness?" and even then the difference in the quality of leather of the same thickness will prevent any person from arriving at mathematical unswerving conclusions. We cannot further enlighten our correspondent. The machinist of good perceptive faculties, has what is called "a knack" in adapting everything under his care to perform its duty in the best manner; this "knack" like the skill of the painter, cannot be taught by any rule.—[Ed.]

Labor-saving Soap.

The following is a receipt for making a barrel of labor-saving soap; it was purchased of a pedlar by Mr. D. Edwards, Little Genesee, N. Y., one of our correspondents. He sends it to us for the benefit of the public, to relieve them of such taxes:—

Take 14 pounds bar soap, or 5 gallons good common soap, 3 pounds sal soda, 1 pound rosin, pounded fine, 8 ounces salt—boil it in five gallons soft water, empty it into a barrel, fill it with cold soft water, add 1 pint turpentine, stir it well, when cold it is fit for use.

To make hard soap all the articles mentioned, with the exception of the water, are doubled. As a soft soap receipt, the above is very good, but it is not "labor-saving," by any means. The articles employed, have long been known to every practical chemist, as good solvents of grease. We have seen some labor-saving soap receipts, far inferior to the one above, for it is a good one—among the best we have seen.—[Ed.]

Another Discovery in Daguerreotyping.

M. Niepce St. Victor, of Paris, has discovered that if a daguerreotype plate be immersed in a bath composed of the chloride of sodium and the sulphate of copper, and to allow it to remain therein for a short time, then wash in distilled water and dry over a spirit lamp, it is capable of receiving the impression of an engraving laid upon it and exposed to the sun for half an hour. It is afterwards washed with ammonia water, or a solution of cyanide of potassium or hypo-sulphite of soda; these washings remove all the chloride of silver. The plate is next washed in a large quantity of water, and allowed to dry, and the impression is fixed by the means of chloride of gold in the usual way. Impressions may be taken by means of these plates, if placed in a camera obscura and exposed to the light for one or two hours. This process is not adapted for portraits. M. N. St. Victor has also discovered that iodide of silver furnishes impressions by means of ammonia similar to the chloride, without the intervention of the mercurial vapors.

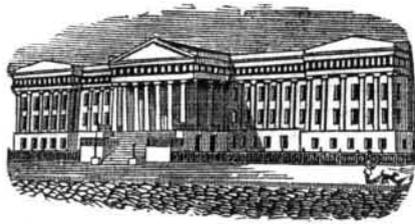
Our Contemporaries.

If any of the papers in which our prospectus for Volume 6 of the Scientific American appeared, do not receive our paper regularly, as promised, they will oblige the publishers by making a complaint to that effect. Over 600 papers throughout the country have inserted our prospectus, and we have their names entered upon our books, but there may have occurred some omissions, and if so, we should consider it a favor to be advised of it, when due reparation will be made, and back numbers furnished to make their sets complete.

Notice.—Erratum.—Patent Laws.

On page 35, No. 5, in our comments on the English Patent Laws, the sentence (16th line) reads, "when an application is made for a patent, notice is sent to all those who have patents;" it should read, "all those who have filed caveats." The difference is a very essential one—the error was not one of a misunderstanding of the law, but an oversight.

A strong effort will be made next session of Congress to get the Bill passed for a reform of the Patent Laws.



Reported expressly for the Scientific American, from the Patent Office Records.

LIST OF PATENT CLAIMS
Issued from the United States Patent Office.
FOR THE WEEK ENDING OCTOBER 22, 1850.

To Chas. Benedict, of Waterbury, Conn., (assignor to the Hotchkiss & Merriman Manufacturing Co.,) for improvement in Suspender Buckles.

I claim connecting the wire forming the tongue of the buckle to the outside plate, by means of an eye or hinge formed by binding a portion of the plate, thus making the whole of but two pieces of metal, also binding or forming the wire which forms the tongue of the buckle, in such a manner as to make a lateral spring for securing itself in its proper place; and also the method of securing the points of the tongue by the lateral hooks, curved from the sides of the plates in such a manner as to receive and partially or entirely cover the points of the tongue, and the whole of these contrivances arranged, connected, and combined substantially as herein described.

To H. W. Bertholf, of Sugar Loaf, N. Y., for improvement in Feeding Apparatus for Straw Cutters.

I claim the use and employment of the adjustable and compressing bed, in combination with the feed roller and a cutting box, having an adjustable block-piece to contract the mouth of it, and so arranged as to present the straw or stalk obliquely at different angles to the action of the knife, and compress it while under the edge, as set forth.

[See engraving of this invention in No. 7, Vol. 5, Sci. Am.]

To Joseph Card, of Fairport, Ohio, for improvement in Cheese Presses.

I claim the elastic strap for raising the platen rod, arranged and operating as set forth.

To L. H. Crooker, of Cincinnati, Ohio, for improvement in machines for making and holding cores for casting.

I claim the combination of the two moving jaws with the stationary piece, said moving jaws being shaped and actuated in the manner specified.

I also claim keeping the cores straight and stiff in the flasks, without the use of anchors, by means of contrivances as described.

To James Cunningham, of Reading, Pa., for apparatus for reversing or stopping Locomotive Engines.

I claim the arrangement and connection of the system of devices, consisting substantially of a rock shaft with its hand lever and arms, link rods, helical segment, drum, sliding key and oscillating arms, together with the eccentrics and valves, with their respective rods, by means of which the movement of the steam valves of a locomotive engine can be arrested or reversed, with proper lead, to reverse the motion of the locomotive by a single movement of the hand.

To J. T. Elliot, of Carrolton, Miss., for improvement in Cotton Presses.

I claim the employment of the press described, so arranged that it may be conveniently charged in an upper story of the building in which it is placed, and actuated and uncharged in a lower story of the same.

To Wm. C. Pagett, of Xenia, O., for improvement in Sub-soil Plows.

I claim the scoop instrument, with the combination of the cutters in the rear, as a sub-soil plow.

To T. B. Pyron, of Salina, Tenn., for improvement in apparatus for releasing horses from carriages.

I claim combining two tapered trace-bars, with the flexible lever or disengaging strap attached to the upper end of the curved confining box plate projecting outward from the swing-logs, in which the flexible lever and ends of the tapered trace-bars fit, and are properly secured with the traces; by the curve of the box plate, and a guard or holder attached to the flexible lever, and fitting into the cavity of the box-plate directly over the ends of the trace-bars, the disengagement being effected

by drawing a cord attached to the flexible lever, which will cause it to approximate to a straight line, and with it elevate the ends of the trace bars, and liberate the same from the curved box plate, as fully set forth.

To E. S. Renwick, of Washington, D. C., for improved wrought Railroad Chair.

I claim a wrought iron railroad chair with legs formed from that portion of the plate on which the rail is usually supported, substantially as set forth.

To T. G. Stagg of New York, N. Y., for improvement in preparing Beef-steaks for cooking.

I claim preparing beef and other steaks for cooking, by running them through toothed rollers, substantially as set forth.

[Epicures may expect something rich from this patent; they will no doubt thank the Patent Office for its generosity.]

To M. & A. K. Whittlesey, of Spring Port, N. Y., for improvement in the fastenings of Coulters for Plows.

We claim the construction of the double plates held in parallel position by the combined action of the coulters and two bolts, substantially as set forth.

To J. H. Wurtz, of New York, N. Y., for improvement in processes for manufacturing Alum.

What I claim is obtaining by the action of sulphuric acid or its equivalent, upon the substance called green-sand, green-sand marl, or simply marl.

RE-ISSUES.

To M. F. Potter, of Charlemont, Mass., for improvement in Portable Furnaces. Patent dated Jan 22, 1850. Re-issued Oct. 22, 1850.

I claim the construction of a portable furnace by which it may be connected with a stove in the manner described: that is, a furnace adapted to the boiler, or other hole of a stove, with a downward draft or driving flue for the escape of the smoke through the bottom into the stove, for the purposes set forth.

To S. A. Bentz & Wm. Andrews, of Frederick, Md., for improvement in Mills for Grinding. Patent dated Dec. 4, 1849. Re-issued Oct. 15, 1850.

We claim the vibrating motion given to the concave, substantially as set forth.

DESIGNS.

To Ezra Ripley, of Troy, N. Y., (assignor to G. W. Eddy, of Waterford, N. Y.) for two designs for Stoves.

To J. L. Jackson, of New York, N. Y., for design for Grate Frame and Fender. Dated Oct. 15, 1850.

Decision in the Great Telegraph Case.

U. S. Circuit Court; District of Massachusetts—by Judge Woodbury. Francis O. J. Smith, vs. Hugh Downing and others.—This was a case in the equity side of the U. S. Court, by an assignee of Professor Morse's Telegraph against a company operating House's Printing Telegraph, to obtain an injunction prohibiting the use of House's Telegraph. It is believed to be the most important Patent Case ever tried in this country. The testimony was unusually voluminous, embracing the evidence of many of the most distinguished Professors of science and mechanical engineers of the country.

The case was argued in June and July last, in Boston, at great length, and with great fullness and ability, by Hon. F. O. J. Smith and B. R. Curtis, Esq., for Morse's Telegraph, and Chas. L. Woodbury, George Gifford, of New York, and Rufus Choate, Esqs., for the House Telegraph.

The Court, after holding the case under advisement for several months, in October delivered the following learned and instructive opinion, which we give at length; as it is fraught with instruction of great value to both the inventors and patentees, and to the public generally, and which we briefly noticed last week.

U. S. Circuit Court—Boston.—In the case of Francis O. J. Smith et al. representing Morse's patent, vs. J. W. Clark et al. representing House's patent, Judge Woodbury delivered an opinion against the injunction prayed for by the plaintiffs. His honor proceeded first to construe the patent of Mr. Morse, which he did in a manner to sustain its validity, viz: that the claim of the principle, or the use of the motive power of electro-magnetism, must be understood as being in combination with the machinery by him invented. To give it a broader signification, his honor said

would be to make void the patent of Mr. Morse. Having determined the construction of the patent, his honor proceeded to consider and comment on the evidence contained in the record, and after briefly considering the numerous European telegraphs, electric and galvanic, which were invented during the last century and the present one, (including Soemering's, Ronald's, Schilling's, the one at Madrid, and others) he proceeded to comment on the attempt of Coxe, in America, and afterwards on the electric recording telegraph invented by a son of Massachusetts, at Long Island in 1828, Mr. Harrison Gray Dyar, which he characterized as of remarkable ingenuity, as, in the application of the idea of time in regulating the space so as to compose an alphabet, and the first American who had succeeded in this purpose of recording, although the system he used differed some from both House's and Morse's. The experiments of Prof. Henry, at Albany, also anterior to Morse's attempt, in which he endowed the electro-magnet with power equal to raising the weight of a ton, and obviated the great difficulties which had lain in the way of using electro-magnetism. These all preceded the passage on board the ship Sulley, in 1832, when Mr. Morse and Dr. Jackson conversed on the subject, and when Mr. Morse commenced his labors. After following down the various inventions and labors of Steinheil, Gauss, Alexander, Weber, Cook and Wheatstone, on the telegraph, to the date of Morse's application for a patent, in 1837, his honor remarked that something was wanted in all these to produce a result perfect for practical use; that, among the sixty competitors who had labored for this end, Morse appeared to have got the most practical and perfect machine. The combination of the pen point and the machinery to move paper, with the telegraph, his honor thought to be that desideratum and the essential point in Morse's invention.

His Honor said that Mr. Morse and his assignees would be protected in the method of telegraphing claimed by Mr Morse. The pen, a most happy thought; the rollers and paper, a most important thought; and the stenographic alphabet, the crowning thought; and any infringement on the things described, &c. would be punished. While Morse is thus secured, the same latitude is left open for his successors to invent as was accorded to Mr. Morse in improving on his many predecessors.

Now, has this patent been violated by the defendants? The defendants insist they have used nothing which was not open and public before the date of Morse's invention. While shielding the public in this right, we must not allow any one to use the invention of Morse without his assent. House's machine appears much unlike Morse's, and in its work differs in using two new powers. While Morse's is simple, that of House's is so complicated as to require days of attention by mechanics to be understood. While Morse's is speedy, House's gives lightning to Roman letters; his speed of breaking and closing is much greater than Morse's and without this greater speed he could not accomplish his object.

Morse's machine traces the signs intended; the type or the lever at one end do so, and the pen at the other also. House's machine does not do this. It acts at both ends by signals, and traces nothing. This new power of axial magnetism, the invention of which is claimed by Mr. House, aids in transferring this so as to have it printed, and the U magnet of Mr. Morse would be utterly inefficient for this purpose. House's is a signal and printing telegraph, and Morse's is a writing telegraph. The electro-magnetism between the two points had been used long before Mr. Morse, and is, therefore, no infringement of his invention. House produces in his machine new results, and cannot be considered as an equivalent for Morse's, as he uses neither the pen, the lever, nor the stenographic alphabet to translate the signs, as appears from the testimony of Prof. Henry, Dr. Jackson, Prof. Hare, Col. Borden, Hibbard, Channing, &c.

His Honor then commented on the originality and novelty in House's machine of the axial magnetism and the use of the air tubes and condensers, and expressed himself astound-

ed, in examining this case, to find that so much which he had supposed to have been new and original in telegraphing, was not of late origin or derived from Mr. Morse's, as electro-magnetism, wires, &c., but that the invention of Mr. Morse lay in a different place from what he had formerly supposed.

Morse's leading novelties, his honor thought were—1st, the local circuits; 2d, writing at a distance by electro-magnetism; 3d, the stenographic alphabet. Neither the electro magnetism, or the Roman letters, or the printing apparatus were invented by Morse. The local circuits and the stenographic alphabet were not used by House, or the writing, &c.

The opinion of the experts, who testified in the case, as to the principles of the two machines, stood thus:—Mr. Morse, who was not regularly educated to mechanics, and whose profession was that of a portrait painter, and, beside him, Mr. Foss, his assistant, who, until a few years past, had been employed as a grocer and baker alone, regard this as an infringement. On the other hand, a numerous body of experts in mechanics—some twelve or fourteen—embracing some of the most talented men in the country in their professions, unite in opinion that this machine of House's is no infringement. Some of these gentlemen say the two machines are as unlike as a goose-quill and a printing press.

His Honor said, he thought the difference of Mr. Morse and Foss from the rest of the experts, arose from attaching a wrong meaning to the word "principle," as used in the patent law, and that, setting aside the battery and wires, &c., which were public, long before Morse began to invent, there could be no question of infringement. The public had the same right to make and re-employ the old modes, the same privilege to make improvements as Morse had in 1832. His honor said, on considering the whole, I do not think the plaintiff entitled to an injunction. His honor expressed his sense of the weight due to the decision of Judge Monroe, of Kentucky, against O'Reilly, but thought it did not apply in this cause, and said that his examination of the evidence in this cause had impelled him to take the views of the subject he had stated, and which, if wrong, he felt gratified it was in the power of another and higher tribunal to reverse. B. R. Curtis and F. O. J. Smith for the plaintiffs; C. L. Woodbury, Geo. Gifford, of New York, and R. Choate, Esq. for the defendants.

Military Surgeons.

We extract the following from the London Lancet of September 7th:

At the battle of Istadt, two surgeons were killed, and no less than eighteen surgeons wounded, in the armies of the Duchies. The celebrated Stromeyer, who was present at the battle, remained with the wounded when General Willisen retreated, and was captured by the Danes. He was sent a prisoner to Copenhagen, but was subsequently released, and allowed to proceed to the head-quarters of General Willisen, at Rendsburg. The casualties of the Danish army surgeons have not transpired; but those which have been published as occurring to the surgeons in the service of the Duchies, are another proof of the exposure of the Medical Staff to the danger of war uncommon with the rest of the army.

It is stated that the late surgeon Cook, of the navy, had two patients killed by cannon shot while on the operating table, during naval engagements at sea, in the war of 1812.—[Philadelphia North American.

[In addition to this, let us say, that at the battle of Navarino, Dr. Peter Marshall, brother of Mr. John Marshall, of Louisville, Ky., performed a feat of heroism with a surgical instrument in his one hand and a boarding-pike in the other, under the eye of Admiral Codrington, which won for him the title of "the brave little Doctor," and was particularly noticed in the official despatches.

If bromine be brought into contact with albumen, the bromine at once finds itself enveloped in albumen without any coagulation being produced, and the volatilization of the bromine is prevented at the same time.