### Bee Keeping in 1875.

A writer in the Journal of Horticulture, England, gives the following hints on bee keeping, adding his own experience on removing dead bees from the hive. If the writer's observations are correct, that the best honey seasons follow the coldest winters, certainly the coming summer must be a productive one in this country.

"I have often observed that our best honey seasons, and they are of rare occurrence here, have followed our coldest winters. Therefore I augur hopefully for the summer before us. It is now (January 16) so warm, and has been forsome days, that a fire might have been dispensed with. At this moment I am sitting with my window wide open, facing north, and my bees have been busy pollen gathering. I noticed this pleasant sight for the first time on the 12th, but I have no doubt they were at it some days before, during my absence from home. All my hives, eleven in number, seem to be in good health and well supplied with provisions.

It is a good thing when the weather is open, as at present, to clear away as many dead bees as can be got at within the the hive without breaking away the hive from its board, This can frequently be done by inserting a piece of wire with a curve at one end, and hooking out the dead on the floor board. The effluvium arising from a mass of corrupting bodies is often very great; and after a long period of cold weather, there is sure to be a considerable quantity of such dead bodies lying about the floorboard inside. The bees ordinarily remove their dead themselves from day to day, when they can get out; but it helps them much to assist them in this labor, besides adding to their health and comfort. Where wooden hives are used, no harm can accrue from breaking up the hive from its board in any case where these fit accurately. It is in the case of straw hives, which rarely sit evenly on the board, that it is perilous to remove these boards in winter. Sometimes I have known the dead accumulate so thickly about the entrances inside as to choke them up entirely, in which case, there being no exit for the bees, the hives perish inevitably. Let all bee keepers watch against eventualities like these, as well as against long-continued accumulations of snow outside on the entrance boards.

These hints are not untimely, as we shall doubtless, ere long, be visited by a sharp increase of cold, all the more sewere for the present extraordinary warmth of temperature.

Since writing the above, I have been examining my hives and found ten out of the eleven pollen gathering, some of them quite vigorously. One hive, active and strong, on inspection by a window at the back, seemed to have a large number of dead scattered below the combs. So being a "good divine that follows his own instruction," I quickly heaved up the hive by means of a screwdriver, and, with a thin stick, swept off right and left about thirty dead bees, whose fragrance was not of the sweetest.'

## American Plumbago or Graphite.

Plumbago is found in almost inexhaustible quantities in Ceylon, and there are mines capable of producing vast quantities in several States on this continent. The American Manufacturer says, however, that repeated trials have been made, and a large amount of capital expended to work these mines profitably, resulting (with one exception) in failure.

The only plumbago mines in the United States successfully worked are located at Ticonderoga, and are the property of the American Graphite Company, 24 Cliff street, New York. This company has been running its works constantly since their erection in 1863. The mines, however, have been worked for half a century. Those at Ticonderoga yield the foliated, while one at Warrensburg, thirty miles south, contains the granulated.

The American Graphite Company, under the management of Mr. Cyrus Butler, were the first in the world to attempt the purification of plumbago ore in a large way.

The company now produce every quality, adapted for all purposes for which black lead is used. For lubricating purposes, for which there is probably nothing superior, the plumbago must be perfec ly pure; and the article produced by the Graphite Company possesses, in a remarkable degree, this qualification, superseding in lubricating qualities even the Ceylon plumbago, the latter being too soft and spongy. The works at Ticonderoga purify the ores, producing an article pure and safe to use in any situation.

Plumbago is infusible, insoluble, and practically indestructible. It is affected neither by extremes of heat or cold, nor by acids or gases. On bearing surfaces, particularly those of iron, steel, and wood, it fills up the interstices and forms a slippery glaze, thus removing the cause of friction.

# A Cure for Lockjaw.

In the course of lectures, recently delivered before the British Society of Arts by Dr. Benjamin Richardson, the following important remarks were made upon nitrite of amyl: 'One of these specimens, I mean the nitrite of amyl, has within the last few years obtained a remarkable importance, owing to its extraordinary action upon the body. A distinguished chemist, Professor Guthrie, while distilling over nitrite of amyl from amylic alcohol, observed that the vapor, when inhaled, quickened his circulation, and made him feel as if he had been running. There was flushing of his face, rapid action of his heart, and breathlessness. In 1861-62 I made a careful and prolonged study of the action of this singular body, and discovered that it produced its effects by causing an extreme relaxation, first of the blood vessels, and afterward of the muscular fibers of the body. To such an extent did this agent thus relax, I found it would overcome the tetanic spasm produced by strychnia; and having thus discovered its action, I ventured to propose its use for remov ng the spasm in some of the extremest spasmodic diseases.

The results have more than realized my expectations. Under the influence of this agent, one of the most agonizing of known human maladies, called angina pectoris, has been brought under such control that the paroxysms have been regularly prevented, and, in one instance at least, altogether removed. Even tetanus, or lockjaw, has been subdued by it, and in two instances, of an extreme kind, so effectively as to warrant the credit of what may be truly called a cure."

NEW BOOKS AND PUBLICATIONS.

The Examineth has put on record will obviate the necessity of the amendment I had proposed. I therefore withdraw my amendment. But I desire to inake another, in the pinth line of the tenth section. The section, as reported from the committee, reads thus:

'The Examineth-in-Chief shall be persons of competent legal knowledge and selentific ability, whose duty it shall be, on the written petition of the appellant, to revise and determine the validity of the adverse decisions of Examiners upon application for patents, and for reissues of patents, and in interference cases; and when required by the Commissioner, they shall bear and report upon claims for extensions, and perform such other duties as his to saving them.'

I want to strike out the words 'new ords 'new ords

CATECHISM OF THE LOCOMOTIVE. By M. N. Forney, Mechanical Engineer. Price \$2.50, New York city: Railroad Gazette Office, 73 Broadway.

This admirable handbook tills a place in our technical literature which has ong been vacant. Although, with commendable candor, the author acknowledges that the plan and title of his work are adapted from Kosak's book on the locomotive, the substance of the articles is so exclusively founded on American practice that it is virtually an original treatise. It is authoritative and accurate in its description of the constructive of the modern steam horse; and it gives many valuable precepts for the manipulation and running of the engine, which have never before, we believe, been printed in any form. The numerous enquiries on these subjects which we receive from ail parts of the country are the best proof of the necessity and value of this

SCIENTIFIC LONDON. By Bernard H. Beeker. New York city: D Appleton & Co., Broadway.

The author has made a very interesting volume of historical and descriptive sketches of the Royal Society, the Royal Institution, the Society of Arts, the Institution of Civil Engineers, the British Association, the Royal Geographical Society, and several other learned bodies, more or less known to fame. The papers originally appeared in the columns of Iron.

GRAPHICAL METHOD FOR THE ANALYSIS OF BRIDGE TRUSSES, extended to Continuous Girders and Draw Spans. By Charles E. Greene, A.M., Professor of Civil Engineering, University of Michigan. Illustrated by Three Folding Plates. Price \$2.00. New York city: D. Van Nostrand, 23 Murray and 27 Warren

This treatise elaborates a method of investigating the stress on roofs and russes, originated by Professor Clerk-Maxwell; and it shows once more the value of the graphical method of describing the physical characteristics of complex bodies, a method which seems destined to be adapted to every branch of mechanical and dynamical science. The author points out, with much force, that not only is the system available for the solution of the problem of the strains on a girder, the dimensions of which are given, but it also contains a means of checking the accuracy of the working drawings of the structure

CHEMICAL EXAMINATION OF ALCOHOLIC LIQUORS. By Albert B. Prescott, M.D., Professor of Organic and Applied Chemistry in the University of Michigan. New York city: D. Van Nes trand, 23 Murray and 27 Warren streets.

This volume is a useful and trustworthy aid to the analysis of all such alcoholic fluids as are used as food or stimulants. It discourses on the question of adulteration in a sensible and practical manner, and contains statements that go far to justify immediate government interference with the trade of the falsifier.

THE OVERLAND MONTHLY. Devoted to the Development of the Country. Terms \$4.00 per annum. San Francisco, Cal.: John H. Carmany & Co., 40 Washington street.

This excellent magazine maintains a well earned reputation. The number now before us (February, 1875) commences with an interesting account of the naval duel between the Kearsarge and the Alabama

A PRACTICAL TREATISE ON THE GASES MET WITH IN COAL MINES. By the late J. J. Atkinson, Government Inspector of Mines, England. Price 50 cents. New York city: D. Van Nostrand 23 Murray and 27 Warren streets.

A useful and readable essay, published in Mr. Van Nostrand's Science

THE AMERICAN EDUCATIONAL CYCLOP &DIA, a Reference Book for All Matters Pertaining to Education. Published Annually Volume I, 1875. Price \$2.00 in cloth, \$1.50 in paper. New Yorkcity: J. W. Schermerhorn & Co., 14 Bond street.

This volume is a complete manual of the statistics of the educational condition of all the States and Territories, with a synopsis of the occurrences affecting the question during the years 1873-1871. Some biographical sketche of prominent educators recently deceased, and articles on the educational systems of other countries, add much interest to this useful work, an advertisement of which appea 's on page 157.

## DECISIONS OF THE PATENT OFFICE.

SEFORETHE BOARD OF EXAMINERS-IN-CHIEF. PRESENT; MARCUS S. HOPKINS, R. L. B. CLARKE, CONCURNING.—APPLICATION OF MILLER T. GREENLEAF AND GEORGE ¶. ADAMS FOR A PATENT FOR A CAR COUPLING.

Continued from page 139.

R. L. B. CLARKE, CONCURRING.—APPLICATION OF MILLER T. GREENLEAF AND GEORGE Q. ADAMS FOR A PATENT FOR A CAR COUPLING.

Continued from page 135.

Our position is a peculiar one with respect to the Commissioner. We are a tribunal vested by statute with certain jurisdiction and powers, but it has never been judicially determined under the present patent act that our favorable decisions, made in the proper exercise of statutory jurisdiction, upon \*\*\* park applications, are binding upon the Commissioner. We are no more than a quasi judicial tribunal. The Commissioner soffice is both executive and quasi judicial tribunal. The Commissioner soffice is both executive and quasi judicial tribunal. The Commissioner soffice is both executive and quasi judicial tribunal. The Commissioner and the ordinary means of sustaining the exercise of them. Just what is the legal scope of the power of the Board and the effect of our decisions upon cases appealed to us as a quasi judicial tribunal within the Patent Office, with his under the general direction of the Commissioner as its head-has long been and still is, a disputed question between the Commissioner and appellants before us, who have sought to invoke our favorable decisions, as sufficient to warrant him in the grant of patents. This question is now actually pending before the Supreme Court of this District ma suit brought for the purpose of determining it. The opinion of the court in Snowdon vs. Plerce (manuscript decisions, Supreme Court, D. C.), referring to the act of 1861, although going clearly to the root of the matter, and strongly and unequivorally declaring our judicial independence of the Commissioner, and the reason for it, had not the force, in the opinion of Commissioner, and the reason for it, had not the force, in the opinion of Commissioner, and the reason for it, had not the force, in the opinion of Commissioner, and the reason for the grant patent is an advantage of the sunday of the court significance:

""If I do not be supplied to the supplied to the Actio

chooses, the men who are appointed by the same power as he is, and with the same rails.

"Mr. Jancker: I think I can show the gentleman from Massachusetts that his amendment is not needed. This power to make the rules and regulations is to apply to the proceedings in the Patent Office, and not at all to the personse unployed there; and the rules and regulations to which the gentleman refers, and of which he complains, are made by the Commissioner under the power in the existing law, which is reprinted in this bill at the end of section 10 in the following words:

'They shall be governed in their action by rules prescribed by him.' (Act of 1861.)

of 186.)

That power me propose to takeaway. It is part of the recommendation of the Committee that these words be stricken out from the existing law, and that the power will the Commissioner shall have and ought to have shall be conducted in his office; the rules of court, so to speak, not the rules of decision but of government. I hope that gentleman will withdraw his smentment.

"Mr. Butter, of Massachusetts: The explanation which the chairman of Spike Machine.—A. Whittemore, Cambridgeport, Mass.

be assigned them by law and not by the will of the Commissioner. That is the point I dushe to make.

"Mr. Jenckes: The language which the gentleman objects to is the language of the exis ing law. As there is no hardship under it, we did not take the responsibility of recommending its alteration.

"Mr. Buller, of Massachusetts: Ah! But the difficulty is that under the old law the Commissioner has shown a disposition to interfere, which the committee by this bill seek very properly to regulate.

"Mr. Jenckes: We thought we met that objection sufficiently by taking away the power to assign duties in the Office. But there are many things in which the Commissioner might wish the services of the Examiners-in-Chief, but which it would be very difficult to prescribe definitely by law.

"Mr. Butter of Massachusetts: Then I will compromise by moving to substitute the word 'like' for the word 'other,' so that it may read 'such like duties as he may assign them."

"Mr. Jenckes: I have no objection to that, " \* \* \* \* The amendment was agreed to." (Cong. Globe, Part 4, 2d. session, 41st. Congress—1869 and 1870, p. 2,385.)

This authentic record history of the passage of section 10, defining the duties of the Board, like the language) of the section inself, plainly shows the intent of the law-making power. The section must be read in cohnection with section 7 defining the duties of the Commissioner, and both sections must be construed together so that each shall stand—the rule being "to remain of the Board, must be held to restrict the meaning of section 7, giving general powers to the Commissioner, and both sections must be construed together so that each shall stand—the rule being "to remain of section 7, giving general powers to the Commissioner, and both sections are lower to the Commissioner, and both sections of the Board, must be held to restrict the meaning of section 7, giving general powers to the Commissioner, not the section are

ties of the Board, like the language of the section itself, plainty shows the intent of the law-making power. The section must be read in colmection must be construed together so that each shall stand—the rule being ""M" for my provided to the plainty of the pl

We have the principles and reasons underlying the law to sanction it to our good sense and judgment.

We have the principles and reasons underlying the law to sanction it to our good sense and judgment.

All we have to do, in the discharge of our duties under the statute giving us power and jurisdiction, is to find and record our judgment.

If done honestly and intelligently, the Commissioner can have no occasion to except to our action.

His power is ample to guard against any evil effect from our finding. If he thinks a patent should not issue for any cause, he has only to refuse, and it will not issue.

If called to give his reasons upon mandamus, his action would be undoubtedly sustained if his reasons should prove good and legal.

I do not believe in forcing parties to pay fees and go to the Commissioner on questions which the law contemplates as within our peculiar province and jurisdiction, and which we should decide on our own consciences and according to our best judgment.

R. L. B. CLARKE, Examiner-la-Chief.

R. L. B. CLARKE, Examiner-la-Chief.

## Inventions Patented in England by Americans.

[Compiled from the Commissioners of Patents' Journal.] From January 15 to February 1, 1875, inclusive. BURNING LIQUID FUEL, ETC .- C. E. Robinson, New York city COATING METALS, ETC. - D. R. Brownlow et at., Middletown. Conn. CUTTING FABRICS.-A. H. Cramp (of New York city), London, England. DYEING AND FINISHING .- P. Magner et al., New Orleans, La. FUR-COATED FABRIC. -H. Kellogg, Milford, Mass. HEAD COVERING, ETC .- H. Kellogg, Milford, Mass. MAKING ICE, ETC.-C. P. N. Weatherby (of New York city), London, Eng. PRESERVING ANIMAL SUBSTANCES, ETC. - J. R. McClintock, New Orleans, La. PREVENTING FRAUDS BY CONDUCTORS .- C. G. Imlay, Philadelphia, Pa. ROLLERS FOR TEXTILE FABRICS. -E. Edwards, Boston, Mass.

ROLLING NUT BLANK BARS .- G. Johnson, Haverstraw, N. Y.

SACK SEWING MACHINE.-H. P. Garland, San Francisco, Cal