"Of course a patent has been applied for. The inventor is James A. Hamilton, a Maine man, who has followed the sea for twenty or more years, seven of which were passed in the service of his country. With him are associated Isaac C. Richardson and John M. Buckley, of this city. They are very confident of success, and claim that their confidence is based on the success of an experiment with a small model on the Harbor Pond. The vessel will be ready for its machinery about the first of July. It will be launched in the Nashua, and the trial trip may come off about the 4th of July.

"Our mechanics are divided on the question of the success of the experiment. Some shake their heads very wisely, and say it is too big a thing to be a success. They evidently think that the experimenters will meet with a defeat as disastrous as Darius Green experienced with his famous flying machine. Others believe with the proprietors that the experiment will succeed, in which case the carrying trade of the world will be revolutionized, the use of steam knocked into a continental hat, and the cost of a trip to Europe reduced to the capacity of any man's pocket. The cost of the experiment will be about $2,000, which the men engaged in it can ill afford to lose, and we sincerely wish they may not lose it. The trial trip will be an interesting event, the date of which cannot yet be fixed, but which will be duly announced through the *Daily Telegraph*."

Correspondence.

The Editors are not responsible for the opinions expressed by their Correspondents.

Mental Emaciation.

MESSRS. EDITORS:—May I be permitted to make some remarks upon an article in a recent issue of your journal, and bearing the above caption?

Is it true that "the best and strongest minds are tugging at the mysteries of nature, and expending their energies in physical researches?" This assertion I connect with the following: "Ask nine out of any ten, selected at random, what is their religious belief, and you will find that they accept a creed they cannot comprehend or explain." This is given as an instance of mental weakness. I ask, is this true? Are there not grave errors deducible from the position you assume, notwithstanding the portion of truth underlying it? Does a man prove his mental strength by "tugging at the mysteries of nature" so that he may "explain and comprehend his religious belief?" Allow me respectfully to say, no; and therefore to ask whether in your article you have not confused mental corpulence with mental strength? I think it can be shown that a man who tugs at the mysteries of nature and expends his energies in physical research, becomes a storer up of facts; a gatherer of knowledge; an accumulator of absolute truths. He fills out his intellectual being, and so becomes what we justly call a learned man; such as are Tyndall, Darwin, Huxley, and others. This gives him intellectual corpulence (justly distinguished by you from intellectual emaciation); what we may term mental enlargement, but not necessarily mental strength. He is learned-but not consequently wise. A man who weighs 220 pounds is not necessarily stronger than one only 140 pounds, that is, in absolute power. He will be comparatively stronger, but not relatively. In fact, the taking on flesh, in all ordinery cases, renders one unwieldy and incapable of muscular effort. It is similar in mental condition. The profoundest attainments in scientific research do not, as a necessary consequence, render their possession strong, mentally; neither is the possession of the profoundest learning a guarantee of intellectual power.

This is the true distinction between the learned and the wise man. Learning, or the accumulation of material, is mental enlargement, that is, corpulence. Wisdom, as the development of self-acting vigor and power, is mental grasp, that is, strength. The wise man does not cultivate his intellectual being by merely taking in and comparing and storing up absolute facts; but by dynamic efforts of reason, thought, and philosophic deduction, he develops that strength of mind, enabling him to grasp those greater questions to which facts are mere stepping stones. Nature and the empirical school of knowledge come in as mere tools in his hand to enable the exercise of pure reason, intellectual thought, and the dealing with questions of moral and spiritual existence, which can no more be evolved from physical knowledge than can the wondrous deeds of the athlete be found in a Lambert. But, even if this were not so, and mental corpulence were really mental strength, and if, to tug at the mysteries of nature and find out and accumulate knowledge, really made a man stronger; is it true that to do this with the object of reaching an unattainable end, is its proof? Let us see. There are many persons who are tugging at the mysteries of nature, to discover the secret of perpetual motion. Is this a proof of their strength of mind? Ceaselessly do they study and toil to wring out of nature what they are convinced can be found in it. You say, and I say, it is folly; and how relentlessly have you striven to ridicule this folly! And yet, I ask, is the man who tugs at the mysteries of nature to explain his religious belief, one whit wiser than they? Do you conceive that Darwin, Huxley, and this class of naturalists generally, manifest any greater strength of mind in tugging at the mysteries of nature, to find out the hidden source of life, or demonstrate a material God? Here the old saw comes in—"The young folks think the old folks fools, but the old folks know the young folks to be fools." The perpetual motionist thinks you and I are fools, to doubt that he can discover his quest, even as the materialist thinks that the Christian philosopher is a fool to question his pursuit; but you and I know that the perpetual motionist is a fool to tug at the mysteries of nature in order to find out what is impossible, even as the Christian philosopher knows that the scientist is a fool, who is toiling, by the accumulation of knowledge, to discover the unknowable. Nothing less than this, in true philosophy, is the endeavor to "explain and comprehend a religious belief." Mental weakness alone prevents its evidence.

This is the preposterous position assumed, by many learned men of the day. Swelling in their mental corpulence, replete with the accumulation of all scientific knowledge, they venture to attack subjects which require for their treatment illimitable mental strength. They bid us accept their dicta upon topics with which their very acquirements disqualify them to cope. They tug at the mysteries of nature as the Rosicrucians toiled after the philosopher's stone, hoping to reach the origin of life, or attain that Utopian absurdity, expressed by you in a later issue, "When men strive to know, not in the sense of the passive acceptance of creeds or formulas, thought out by others, but each thought out by themselves, then will poverty, drunkenness, crime, and most of the diseases of the human race end."

Do you wonder that to a Christian philosopher such aim in knowledge stands, an unutterable folly, and that he, recognizing in man a fallen and sinful nature, shall say to him what you would to the perpetual motionist: "Do away with gravity and its laws, and you can obtain your quest; until then your toil is weakness, not strength." So he will say, "do away with a sinful nature and moral weakness, until then your toil is folly." R. W.

New Haven, Conn.

A Barometer Without Mercury.

MESSRS. EDITORS:—In 1856 or 7, I described in the SCIENTIFIC AMERICAN a "Cheap Barometer," which does not differ very essentially from that invented by Professor Heller, and described in your issue of June 10th. It consisted of an air tight tin can, suspended or fastened to the shorter end of a long and light balance beam, the longer end of the beam serving for an index to show the variations in the atmosphere by moving over a graduated arc. A correspondent pronounced it a hygrometer. According to him, the movement of the index was caused by the deposition of moisture upon the tin can. He was certainly wrong, for the index did not move, with the variations of the weather, in the right direction to satisfy his theory. But his criticism suggested an idea. I then constructed another barometer, consisting of two oy ter cans fastened to the ends of a balance beam, of equal arms, one of the cans being made air tight, the other left open, the latter one having been thoroughly washed to remove all remains of salt. The pivots are points of needles resting upon bits of glass. The whole is inclosed in a tight wooden box, to preserve it from currents of air, with the exception of the index which is outside of the box, and moves over a graduated arc of 6 inches radius. The open can serves no other purpose than to balance the tight one, and to furnish an equal and compensating surface for the deposition of moisture, dust, etc.

The nice adjustment of the center of gravity of the beam, to make the instrument effective to indicate small changes in the density of the atmosphere, creates the liability of one or other of the cans kicking the beam when great changes take place. To remedy this a small weight is attached to the index or pointer, which may be slipped one way or the other as the case may require.

My barometer shows the two daily variations very perceptibly, the index moving nearly ½ of an inch. I have not studied its movements much in connection with the weather, nor compared them with those of the mercurial barometer. It is little other than a plaything, as I suppose most fluid barometers to be in the hands of the unscientific.

J. H. PARSONS.

Doctoring Iron--The Bendell Process.

MESSRS. EDITORS.—We noticed with pleasure your article in the SCIENTIFIC AMERICAN, June 10, 1871, on "Doctoring Iron"

We agree with you in regard to failures accompanying previous experiments, and the fact that it is difficult to define the line where iron ends and steel begins.

The primary cause of failures is easily accounted for; the parties who have thus operated have invariably used a combination or compound of the elements.

We are not at liberty at the present time to fully explain our process, and throw it broadcast to the world; but we will do so in a short time, when we expect to meet with counter opinions and prejudices. Allow us to say this much to you in confidence, that we use not elements, but one of the primary principals which are the component parts of iron ore, which has an affinity for all the elements, and especially so for the superfluous gases that unite with iron, namely, phosphorus, sulphur, and silicon, thus discarding all compounds or mixtures of chemicals or metals. We take either red short or cold short iron alone, and produce a neutral iron, that is pronounced by all the iron merchants and best judges of iron in this vicinity (whose names we are at liberty to use), superior to any refined iron in the market, and some say, equal to Peru, Norway, or Sweden iron; it is unsurpassed by none for density, tenacity and ductility.

We send you samples per express that are rolled from the puddled billet, and made from No. 2 Hudson pig iron. Also, a sample of a railroad bar, the flange and standard being made from iron puddled in the ordinary way, the cap (composed of two 3 inch and two 4 inch puddled bars) by our process, made in the same furnace, worked by the same men, from the same pig iron as is used at the Lodi Rolling Mills, Syracuse, N. Y. BENDELL, THOMPSON & CO.

Syracuse, N. Y.

Steam on the Erie Canal.

MESSRS. EDITORS:—I applaud, with all my heart, the commendable interest you take, as journalists, in the all absorbing question of the hour, to wit: canal navigation by steam.

Permit me to suggest that the first thing to be done is to let a test be made, and that too at the very earliest practicable moment, of such inventions as have been made, to ascertain whether the bill, generously and wisely passed by the Legislature, with all of its severe exactions and restrictions, can or cannot be complied with. The suggestion of throwing away another year to wait for another Legislature to make amendments to it, plainly suggests that somebody, unable to face the stern requisitions of the present bill, wants the great canal's interests to languish another year, merely to enable him to slip in on some slipshod device shut out by the present bill.

The present bill, I grant you, is severe in its terms, but $100,000 ought not to be given away by the State on any other kind of terms, especially when there are from ten to twelve inventors now ready to enter the contest, firm in the conviction that they can take the prize.

Again: permit me to attract special attention to the fact that only one half of this prize is to be given upon the first report. The second half is not to be awarded until November, 1873, and not then unless the Commissioners find that the device to which the first prize has been awarded has been generally adopted, and promises to prove practical and profitable. This fact, you must perceive, renders the time which intervenes between the first award and the first of November, 1873, of incalculable value to the successful contestant. The sooner the contest comes off, and the sooner the first award is made, the longer must be the period that will intervene between the first trial and November 1st, 1873; and, of course, the greater will be the opportunity and facilities, afforded to the invention successful on the first trial, to take the last half of the premium, to work out the redemption of our sinking canal fortunes, and to convert the Erie canal into a source of revenue to the State.

Can any solid reason be given why this commission has not been organized, and a day fixed to put the inventions already made through a thorough test? If they do not intend to act, why do they not resign, and let his Excellency, Governor Hoffman, appoint others who will act? ERIE.

Kalsomining.

MESSRS. EDITORS:—Seeing an article in your paper of June 3, on kalsomining, I thought I would contradict some of the errors therein, in order to prevent some inexperienced reader from being deceived by it.

First, the article says, take nine ounces of glue to six pounds Paris white. This, in my experience, and I have had considerable, is not enough. One pound of good glue to ten pounds Paris white are the usual quantities. But a man must be guided by the condition of the ceiling; the quantities I have stated are for a ceiling clean and in good condition. If ceilings have some old stuff on them, they may sometimes be prepared by giving them a light coat, provided the old coat has glue enough to hold it from rubbing off. But this way can never be depended on to make smooth work.

Now, in regard to brushes, it is simply impossible for a person to make good work with the ordinary lime brush; you might just as well use a rag and expect to turn out a good job. Your directions as to thinning with warm water I think a grave mistake; house painters always endeavor to get it chilled before using. It works much easier, and makes a smoother finish.

In conclusion, I would like to ask some of your many readers if there is anything that they can recommend as a substitute for glue? Something that will not sour so quickly when mixed up, and as cheap as glue, is wanted.

Brooklyn, N. Y. W. J. DAVIS.

[It will be seen that Mr. Davis' formula varies from ours about six tenths of one per cent. The use of cold water to thin a mixture of which the stiffening is glue will not be approved by many practitioners.—EDS.

Tanning Leather.

MESSRS. EDITORS:—The increasing demand for leather is developing new processes for its production. The following is proposed as one among the experimental methods for attaining practical results:

Prepare a solution of animal and vegetable fibrin, gelatin, and analogous protein compounds which can be precipitated by chemical affinity on canvas and other fabrics of cotton, woolen, linen, silk, and other fibrous substances. Take the fabric thus prepared through a regular tanning process, rendering the precipitate insoluble in water, and capable of resisting absorption. The process promises, in the hands of a chemist, important results. FREDERICKSBURG.

Fredericksburg, Va.

Another Barometer Without Mercury.

MESSRS. EDITORS:—I notice in your issue of June 10, a description of a barometer without mercury. Several years ago, I constructed one upon the same principle, as follows: I made a light box of a capacity of about 50 inches. This I fastened to the end of an index about 28 inches in length. About 4 inches from the box I put through a pivot with knife edges, and balanced the index with a leaden weight, which was adjustable sidewise, and up and down, so that I could change the center of gravity at will till I had got the extremes of variation about equal from a horizontal, and the whole distance through which the index moved to correspond with the length of the arc. The index and box were varnished to keep them from being affected by moisture. The rest of the instrument was simply a piece of board with a standard on one end to support the index, and an arc of 40

inches on the other end. I have had the center of gravity adjusted so near the pivot that the index would vary more than the 40 inches in the extremes of weather, and it was no uncommon thing for it to vary several inches in a day. Such a machine needs to be boxed up, or kept where there is no air in motion, or the index will be constantly on the move.

Buchanan, Mich. W. G. B.

A Petrified Bird's Nest and Eggs.---Fossil Trees in California.

MESSRS, EDITORS:—In the SCIENTIFIC AMERICAN of April 24th, I read an account of fossil trees in one of the lower counties of California. That is not the only place where they have been found. In the mining districts of Chalk Bluff and You Bet, Nevada county, Cal., they have been found in great numbers and quite large, though not so large as those described. They were found imbedded in the gravel which overlies the slate, at a depth of from fifty to one hundred feet, and in some places still greater. In fact, when I was engaged in mining in those districts, there had been no bed rock found in many places, and the depth of gravel was consequently unknown. These fossil trees were exhumed in washing away the gravel banks by what is known as the hydraulic mode of gold mining, much practiced at that time in California. The trunks and some of the largest branches (as for instance, where a tree would form a fork) were generally entire, but the roots and smaller branches were all gone, showing that they had been roughly handled by the water, and proving the pre-existence of strong currents at some remote period of time. These remains were mostly silicified, though I have found specimens that were not. I once found the remains of what had probably been a spruce tree, near the edge of one of these ancient channels, the bark of which was in a good state of preservation, though strongly impregnated with sulphur. I burned some of this bark, after drying it, on a blacksmith's forge by way of experiment. I succeeded in obtaining heat enough from it to bring steel to the proper temperature for working and tempering, but the sulphur fumes were anything but agreeable. These ancient relics of the forests of other ages seemed to comprise both the hard and soft woods, and in some instances the natural appearance of the wood was remarkably preserved. I have seen specimens of tar pine, exhumed at Chalk Bluff, that lohked as if they might be easily ignited by holding them in a flame. I once found, fifty feet below the surface of the ground, and six feet from the bed rock, a piece of wood (apparently some kind of cedar) about five feet long by seven inches wide, worn quite thin, and sound enough to preserve its elasticity in a great measure. This specimen was found at Red Dog, near Chalk Bluff, in the claim of Mallory & Co. The most remarkable petrifaction I ever saw was found in the mining ground of Messrs. Nichols and Ennis, in the You Bet mining district. It consisted of a bird's nest and eggs thoroughly silicified, the eggs retaining their natural size and shape. The nest was somewhat flattened, and what had evidently been the straws and twigs of which it had in former times been composed were like threads of glass. Some of the eggs were broken before the nest was discovered; the shells seemed thickened but very little, if any. What had apparently been the inside of the egg was now like a little dab of glass. This nest was taken from the fork of a large fossil tree, where it had been for ages undisturbed in its cosy rest-resting place, until wood, nest and eggs had passed away, and their place and form been assumed by the silex of which the fossil was composed. GOLD MINER.

Cheap Rice Huller.

MESSRS. EDITORS:—In the SCIENTIFIC AMERICAN of May 20, I noticed a call for a cheap rice huller. From my experience with rice, I believe two iron rollers twelve to eighteen inches, more or less in length, by three inches diameter, slightly inclined, and so arranged as to quite touch, parallel, revolving towards each other, will accomplish the objects of hulling and polishing, and at the same time come under the head of cheap rice mill. E. G. H.

Fulton, Texas.

The Hartford Steam Boiler Inspection and Insurance Company.

The Hartford Steam Boiler Inspection and Insurance Company makes the following report of its inspections in the month of May, 1871:

During the month, there were 576 visits of inspection made, and 1,101 boilers examined—905 externally and 328 internally, while there were 115 tested by hydraulic pressure. The number of defects discovered were 490, of which 49 were regarded as specially dangerous. These defects were, in detail, as follows:

Furnaces out of shape, 30; fractures, 17—7 dangerous; burned plates, 30—5 dangerous; blistered plates, 56—10 dangerous; cases of sediment and deposit, 52—4 dangerous; cases of scale, 68; cases of external corrosion, 30—6 dangerous; cases of internal corrosion, 18—2 dangerous; cases of internal grooving, 2; water gages out of order, 29; blow-out apparatus out of order, 2; safety valves out of order, 12; pressure gages out of order, 79—3 dangerous; deficiency of water, 9—4 dangerous; broken braces and stays, 8—1 dangerous; boilers condemned, 2.

The defects which are brought to light by careful inspection during the month, are often numerous, and but for their timely detection, serious disaster might occur. Our object in reporting them is, that as far as practicable, their re-occurrence may be obviated by calling attention to them. These defects, when taken singly, may seem very slight and hardly worth noticing; but when one familiar with this work has seen the subtle and insidious work of the enemy gradually but surely progressing, it is time to cry out in warning against it. A little corrosion may seem a slight thing; but when it is known that, if unchecked, it will sooner or later put the boiler in a very dangerous condition, and jeopardize the lives of all those who work in its immediate vicinity, it is time to call the attention of steam users to the fact, that the best boilers are liable not only to this, but to any one of the defects enumerated above, and to show the importance of securing, at least once a year, a careful examination of every part of the boiler and all its attachments. We have in our possession a piece of iron taken from a plate of a boiler which, from external corrosion, was reduced to one eighth inch in thickness; and the day before our inspector discovered it, 80 lbs. pressure was used on the boiler. There are, no doubt, scores of boilers in a similar condition in every large city and manufacturing town, which condition will never be known until they are thoroughly examined internally and externally, or until, under combined defects and weaknesses, unable longer to resist the power within, they yield, scattering death and destruction in all directions.

Boilers at High Levels.

In the course of the account, says *Engineering*, of the recent meeting of the South Wales Institute of Engineers, appears a report of a somewhat curious discussion. Some little time ago Mr. T. Dyne Steel designed and sent out some boilers and engines for use at the silver mines of Cerro de Pasco, Peru, these boilers being set to work at such an elevation above sea level that the atmospheric pressure is equal to but about nine pounds per square inch above a vacuum. As both the engines and boilers included many very ingenious and interesting constructive details, Mr. Steel very properly read a paper on them before the South Wales Institute of Engineers, and it is to the discussion on this paper that we have alluded. It appears that the workmen in charge of the engines, fearing that the reduced atmospheric pressure would exercise some mysterious influence on the boilers, worked the latter at a pressure of but thirty pounds, instead of fifty pounds or sixty pounds per square inch, as intended, and the consequence was an extravagant expenditure of fuel. Mr. Steel, hearing of this, very properly sent out orders for the boilers to be worked at the pressure originally intended, and has since received information of a most satisfactory reduction in the consumption of fuel. Had the matter ended here we should have had nothing to say about it; but when the facts above stated were laid before the South Wales Institute by Mr. Steel, we find to our astonishment that several members rose and supported the idea that the reduction in the atmospheric pressure would actually increase the strain on the boilers! It never appears to have occurred to these gentlemen, or, indeed, to any one who spoke in the discussion, that the load on a safety valve merely represents the difference of pressure within and without the boiler, and that the difference due to this load will of course remain the same, whatever the absolute external pressure may be. In other words, if a safety valve be loaded to fifty pounds per square inch, the maximum strain which can be imposed upon the boiler (supposing the valve to act properly) will be that due to an excess of internal over external pressure of fifty pounds per square inch, and this will be the case whether the boiler is worked in a vacuum or in a chamber containing air compressed to a dozen or more atmospheres. As with the safety valves so with the pressure gages, these gages merely indicating the difference of pressure within and without the boiler. It is certainly most singular that such a simple matter as this could possibly be misunderstood, and that a discussion upon it should have taken place before an engineering institution without the facts being set forth in their true light.

What is Life?

I have thus far contrasted inert matter with organized beings possessing life. That the term life indicates a very special property there can be no doubt, but as yet an impenetrable veil seems to shroud its ultimate processes. I believe, however, that the veil is at the far end of the labyrinth in which we are now wandering, and that patient observation and guarded generalization may yet enable us greatly to narrow the limits of the unknown—to approach some steps nearer to the veil. I must premise that, as I am now looking at the subject from a purely physiological point of view, I regard life simply as a condition capable of producing certain perceptible phenomena, and can take no cognizance whatever of that mysterious union between spirit and matter which is broken in passing through "the valley of the shadow of death." Material processes and material changes only are subject to the material instruments of biological research. These inner mysteries are now and must probably ever remain, in our present condition of existence, beyond the veil.

It becomes daily more manifest, with the advance of knowledge, that the action of known physical laws—such as chemical affinity and capillarity as manifested by porous media and by colloids—is most intimately interwoven with all organic processes, and it is as yet impossible to say how far life may influence, in the sense of modifying or directing, the action of these laws. Life has been called the vital force, and it has been suggested that it may be found to belong to the same category as the convertible forces heat and light. Life seems, however, to be more a property of matter in a certain state of combination than a force. It does no work in the ordinary sense. If a man lift a weight a couple of feet off the ground, many of the so-called vital actions are called into play, but yet every part of the work done can be accounted for by the action of the ordinary physical forces. The act of the will, in legal phrase the "mere motion," which induced the lifting of the weight, can be referred, we can scarcely doubt, to the mechanical action of some part of a large and complicated apparatus, the cerebral hemispheres, and was accompanied by a waste of their substance.

The telegraphic communication' to the muscles involved, which harmonized their several acts and signalled the contraction of their fibers, was conveyed through a cord whose molecules were set in vibration by a force very probably convertible with the physical forces, generated by chemical change and the waste of tissue; and in the muscle, the organ by which the weight was actually raised, an amount of waste took place—that is to say, an amount of carbon was combined with oxygen precisely equivalent theoretically to the quantity of coal which must have been burned in a perfectly constructed engine to do the same work.

Chemical forces act in living beings under very special circumstances. For a series of years a mass of substances is held undergoing constant change and throughout in the most unstable state of chemical combination. The instant the condition of life is removed, decomposition commences, and the complex constituents of the body are resolved into more simple and stable combinations. But yet it may be fairly questioned whether the chemical relations of the component elements of an organized body are in any way directly affected or controlled by life. It has become quite conceivable, especially through the researches of the late Master of the Mint, that a constant adjustment and re-adjustment of membranous and colloid diaphragms in the presence of powerful catalytic agents may possibly explain the maintenance of almost any chemical conditions, however complicated.

The one function of living beings whose explanation it seems at present impossible to imagine except by regarding it as the manifestation of a special property, is what has been called the "molding of specific form;" the building up of a heterogeneous and complicated organism, which shall repeat, not rigidly but with a certain degree of flexibility, the characters which have been transmitted to it through a germ from a parent, every molecule of every part having thus a direct relation in form, in position, and in composition, to every other molecule of the body. At present, regarding it from a purely material point of view, we are scarcely justified in regarding life as more than that condition of an organized being in which the products of chemical and physical changes taking place within it are stamped with a specific organic form.—*Prof. Wyville Thompson.*

The Sub-Atlantic Telegraph.

For several months past the entire foreign telegraphic business has been dependent upon the single French Cable; both of the other cables, belonging to the Atlantic company, have ceased to operate. Owing to the stormy weather and the pressure of ice off the coast of Newfoundland, it has been impossible to fish up the damaged cables. Recently, however, the cable company's steamer *Scanderia*, which was sent out from England expressly for the work, has recovered both of the damaged cables, taken up sixty-eight miles thereof, all in good order, and replaced ninety-five miles of new cable of heavier and stronger character. The cables thus repaired are now in working order. On July 1st the rates for messages will be $1 for each word.

Raising the Bodies of Drowned Persons.

In the case of a recent accidental drowning, in the Hackensack river, N. J., several persons made attempts to recover the body, but without success. A French Canadian, named Busché, then undertook the job, and is reported to have proceeded after the following scientific manner. Having supplied himself with some glass gallon jars and a quantity of unslacked lime, he went in a boat to the place where the man was seen to go down. One of the jars was filled half full of lime, then filled up with water and tightly corked. It was then dropped into the water, and soon after exploded at the bottom of the river with a loud report. After the third trial, each time in a different place, the body arose to the surface and was secured.

IT appears from the report for 1870 of the Postmaster-General of Hong Kong, China, that the average time made by the American steamers from that place to San Francisco, by way of Japan, was 34 days. The average of the British steamers to England, by way of the Suez Canal, was 61 days. If we add 6½ days from San Francisco to New York by rail, and 12 days from New York to Liverpool by steamer, we have 52½ days as the time in which England can be reached from China by way of the United States, against 61 days by the Oriental route—a difference of 8½ days in favor of the former. Eventually, with quicker trips by rail and steamer, which can readily be made, the time over the American route can be made shorter still by from three to four days.

HOW TO BRIGHTEN STRAW MATTING AND OILCLOTH.—Tell your readers, writes Mrs. G. E., that if they wish their straw matting to keep new looking and bright, they must wash it twice during the summer with salt and water, say about a pint of salt, dissolved in half a pailful of warm, soft water, drying the matting quickly with a soft cloth. The salt, she says, will prevent it from turning yellow. Far away, and from quite an opposite quarter, we hear another friendly voice, begging us to say to our readers that after oilcloth is scrubbed and dried, it should be rubbed all over with a cloth dipped in milk. "You've no idea," says our friend, "how brightly the colors come out. Husband says it's the albumen in the milk, but I think it's the very thin film of grease deposited. Meantime, our oilcloth shines the whole year through."