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USEFUL RECEIPTS.

Chloride of Sodium (Common Salt) in Intermittent Fever.

The most elaborate and carefully prepared paper on this subject is from the pen of Dr. Lattemore, in a late number of the American Journal of Medical Sciences. In this essay Dr. L. details the method pursued by M. Piorry—his extreme tact in detecting enlargement of the spleen—his success in reducing this organ by the use of chloride of soda.—Most of the cases of intermittent fever met with in the Parisian Hospitals are of long standing and imported from Algiers, says Dr. L., and they are always accompanied with enlarged spleens and difficult to cure. "We witnessed," says this writer, "many of the experiments of M. Piorry, and in a great majority of cases the fever yielded to salt quite as readily as to the salts of quinia." M. Piorry's method of administering the chloride of soda is, to give half an ounce in a cup of thin soup during the apyrexia (intermission) and fasting. It generally agrees with the stomach; rarely purges or vomits. Three doses usually suffice to effect a cure.

Court Plaster.

To make this, black silk is strained and brushed over ten or twelve times with the following preparation:—Dissolve half an ounce of balsam of benzoin in six ounces of rectified spirits of wine; and in a separate vessel dissolve one ounce of isinglass in as little water as may be. Strain each solution, mix them, and let the mixture rest, so that any undissolved parts may subside; when the clear liquid is cold it will form a jelly, which must be warmed before it is applied to the silk. When the silk coated with it is quite dry, it must be finished off with a coat of a solution of four ounces of turpentine in six ounces of tincture of benzoin, to prevent its cracking.

Crayons.

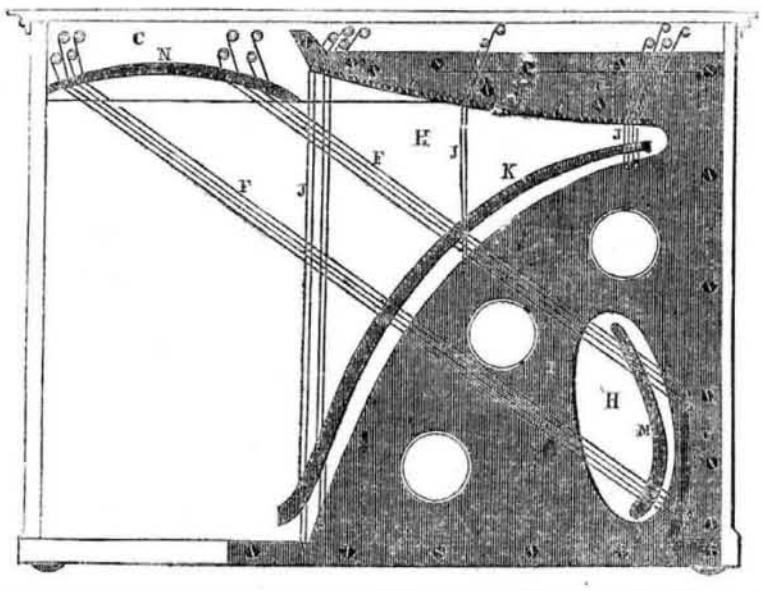
Colored cylinders used for drawing upon paper; they are usually made of a fine pipe-clay, colored with metallic pigments or carmine. Crayons containing plumbago are styled solid lead pencils.

CRAYONS, LITHOGRAPHIC.—Various formulæ have been given for the formation of these crayons. One of these prescribes, white wax four parts; hard tallow soap, shellac, of each two parts; lamp black one part. Another is, dried tallow soap and white wax, each six parts; lamp black one part. This mixture being fused with a gentle heat, is to be cast into moulds for forming crayons of a proper size.

Tunnel through the Alleghanies.

One of the tunnels through the Alleghanies, now constructing on the line of the Pennsylvania Railroad, is to be 3,570 feet in length. Its area, at the widest space within the lines of the masonry, will be about 24 feet, and the spring of the arch will begin 16 feet from the crown of the arch. About 400 men are employed upon it.

IMPROVEMENTS IN UPRIGHT PIANOFORTES.---Fig. 1.

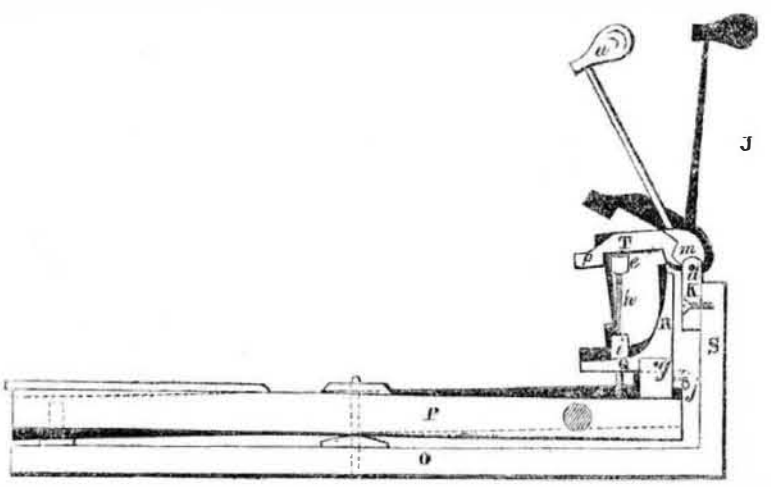


The annexed engravings are views of improvements in Upright Pianofortes, invented by R. E. Letton, of Quincy, Ill., and for which a patent was granted the 5th of last October, (1852). The invention consists in a certain arrangement of the sounding-board, metallic plate, and bridges; also in the "action" or striking part.

Figure 1 is an elevated view of the metallic plate, sounding-board, &c., and fig. 2 is a side elevation of the striking part.

The demand for the first two improvements lay in the fact that, in almost all pianofortes, the upper notes are weak and greatly deficient in fullness of tone. This is owing to the necessary shortness of strings, and the extreme nearness of the bridge to the edge of the sounding-board, by which each string becomes shorter and shorter, consequently has less and less vibration, and of course a diminution of tone as the bridge, which the short strings cross, approaches the edge of the sounding-board. This difficulty is greatly obviated by the metallic plate, I, fig. 1, which is secured to the frame a short distance in front of the sounding-board. The upper part of this plate, which carries the rest, *b b*, for the upright or shorter strings, J J, extends some distance over the sounding-board, and is supported firmly by blocks, C C, which pass through the sounding-board, and rest against the standards in the back of the frame. The reason for extending the plate, I, over the sounding-board, is to bring the upper part of the bridge, K, over which the shorter strings pass, nearer to the centre, and thus to give the upper notes the full benefit of the vibration of the sounding-board, and render them full and firm, that is, more flute-like, and not

Figure 2.



wiry and thin. The fact that the sounding-board can be more easily set in motion near its centre, than at the edge, can be proved by a common illustration: thus, place the two ends of a board on blocks, the nearer to the centre a person stands on the board, the more easily is it sprung. The same difficulty takes place in the bass strings, but the great length of these strings, and the consequent strong vibration, overcomes the lack in the sounding-board.

All persons acquainted with upright pianofortes, know their want of freedom to the touch; a performer is not able to play with the same expression as on the square or grand piano—it is not so sensitive to the light touch owing to the complicated combinations in the actions in order to reach the upper end of the strings. This improvement consists in constructing a simple and free action, and placing the strings within its reach, instead of additional machinery to reach the strings. This is accomplished by the bass or long oblique strings, F F, which are attached to or pass round pins in the metal plate or bracket, L, which is secured in nearly a vertical position in front of the metallic plate at the lower right hand corner, fig. 1; from thence they pass over the bridge, M, which rests on the sounding-board (an opening being made in the metallic plate to admit the bridge), from thence, crossing in front of the strings, J J, they pass over a curved bridge, N, which is firmly secured in a nearly horizontal position to the top timber or tuning block, C, terminating in the upper left-hand corner of the case. By this arrangement the greatest possible length of string is obtained. The bridge, N, is brought a little lower than the end of the metallic plate, in order to bring the long strings within reach of the action, it being necessary to strike the string within a certain distance of the end, to produce the greatest tone.

In figure 2, the action is all attached to the key-board, O, where the end of the key-board and one of the strings is shown, and that will be sufficient to explain the operation of the hammers on all the strings. P is the key; Q R is a bent lever, termed the jack, which hangs on a pivot, *g*; in a small block upon the back of the key, an upright wire, *h*, is secured in the top of the key, and passes freely through the arm, Q, of the bent lever. This wire is screwed and furnished above the arm, Q, with a button or nut of leather or other material, *i*, which is adjustable at various heights to regulate the height of the end of the said arm, which is thrown up against it by a spring, J, placed between it and the key. By thus adjusting the arm Q, the arm R is adjusted to bring its point or upper end to any required position. Attached to the back edge of the key-board, O, there is a perpendicular board, S, running the entire length of the key-board; to this board all the blocks, K, which carry the hammer butts, T, are attached. The hammer butt hangs on a pivot, *d*, and carries the hammer, *u*, in the usual way. When the key has been depressed, the hammer is then thrown back immediately after striking, by the weight of the butt, which is extended in the form of a low arm. This part of the butt, T, rests, when the key is left free, upon a button, *e*, at the upper end of the wire, *h*, and in that position it is represented in the figure. This button, *e*, is adjustable on a screw on the wire, to regulate the fall of the hammer. On the under-side of the arm, T, there is a small cushioned block or projection, *p*, the office of which is to fall on the button, *e*, immediately after the hammer has struck and while the key is retained; the button, *e*, thus acts as a stop, and prevents the entire descent of the hammer, by only allowing it to fall back a short distance, enabling the operator to repeat a note a number of times in rapid succession. The button, *e*, by being adjusted at a proper height on the wire, *h*, is also intended to leave the point of the arm, R, of the jack free of the butt when the key is free. The key is shown in shaded lines as depressed, the hammer being in the act of striking, and just about to fall back. It will be understood, by referring to the shaded lines, that the point of the key lever, in throwing up the hammer, arrives at the vertex of the shoulder, *m*, and then passes it, leaving the hammer free to fall back and bring its cushioned block, *p*, to the button, O, which it does instantaneously, without perceptibly displacing the key lever, thereby rendering the notes sure and quick.

The frame is made in a substantial manner, with oblique braces and oblique iron bars, to resist the opposite strain of the long or bass strings.

About the upright position of the pianoforte it is useless to say anything, for in this compact form it occupies much less space than in any other position, and therefore is a more convenient, and more graceful article of furniture.

More information may be obtained by letter addressed to the patentee.

Gold at the Mint.

From the first to the 15th of December, the receipts of gold at the United States Mint in Philadelphia, were $2,870,00—a large amount for the period, though not up to the unprecedented deposit of November.

Mr. Hind, of the Observatory of Regent's Park, London, has discovered another new planet, situated between the two bright stars in the horns of Taurus.