(37) T. J. S. says: Please give us a recipe for a cement that will resist the action of alcohol. A. Melt together equal parts of pitch and gutta percha. Apply hot.

(38) J. A. C. asks: Please name a substitute for lime in a washing compound of sal soda and lime, as the lime will not keep. A. We do not see that the introduction of lime, or any substitute similar in properties, is requisite. A solution of subcarbonate of soda (sal soda) in water is all that is required. The following recipe has lately been introduced in large laundries; it is of German origin: The clothes are simply boiled for about half an hour, with occasional stirring, in water containing about half a pound of common hard soap, ground fine, and 2 ozs. spirits of tur-pentine to the gallon. The clothes, after rinsing as usual in clean water, and drying in the air, do not retain the slightest odor of the turpentine.

(39) A. R. L. asks: Is there any acid used in the manufacture of sirup? Is it injurious, and how can I detect the presence of it? A. If you mean grape sugar sirup, yes, sulphuric acid; but it is all removed by lime. Test a small portion of the sirup with a solution of chloride of barium; the clouding of the solution indicates the presence of sulphuric acid.

(40) R. L. C. savs: I have made an ink by mixing 5 gallons water, 1/2 lb. logwood, 1/2 oz. bichromate of potassa, and ½ oz. prussiate of potash, but this ink will not mix with other inks. Why if this? A. Ordinary ink contains gallate of iron, which is precipitated as Prussian blue on the addition of any mixture containing an alkaline ferrocyanide. At the same time a portion of the chromate suffers decomposition.

(41) P. J. B. asks: What substance will remove the gloss from a black coat, so that it will not immediately reappear? The shiny appear ance is probably caused by its rubbing against the back of a wooden seat in a horse car. A. Sponge it regularly with a soap containing considerable alkali. If this does not succeed well. use benzole.

(42) W. W. A.asks: Is there anything injurious in paraffin wax, if mixed with bread? A. There is not, but paraffin is not desirable as

(43) T. L. M. says, in reply to M. H. C., who other: It describes a perfect ellipse.

(44) F. M. P. says, in reply to G. S. P., who asks about artificial egg hatching: Last spring, there were hundreds of chickens hatched in a box 2 feet square by 6 feet long, set on end. The upper half was full of frames like sieves, frames covered with canvas; these were 4 inches apart, on slides. They were filled full of eggs, and at the bottom of the box was a coal oil lamp burning: directly over it was a pan with water in to keep the air damp. The operation was watched, and the eggs were turned every day.

MINERALS, ETC. - Specimens have been received from the following correspondents, and examined, with the results stated:

J. D. B.-It is red jasper.-F. D. B.-All four are flint, containing different percentages of iron. J. B. H.—It contains about 20 per cent of iron.
 H. C. B.—They are crystals of sulphate of lime. -O. H. J.—No. 1 is spiegeleisen. No. 2 is flint. No. 3 is decomposed mica.—J.B.—It is compact quartz rock. The small percentage of iron contained in it may hurt it for the purpose proposed .-- J. H.P. -No. 1 is fibrous selenite. No. 2 is iron pyrites. No. 3 is hornstone. No. 4 is milky quartz. No. 5 is ferruginous quartz. No. 5 is quartzite. No. 7 is shale. No. 8 is gypsum. No. 9 is iron sandstone. No, 11 is crystalized selenite.—W. M. B.— It contains sulphuric acid, chloride of sodium, carbonate of lime, and a great amount of organic matter. Add lime water, boil, and filter through gravel, sand, and charcoal.

COMMUNICATIONS RECEIVED.

The Editor of the SCIENTIFIC AMERICAN acknowledges, with much pleasure, the receipt of original papers and contributions upon the follow ing subjects:

On the Analogy of Light, Heat, etc. By S. A. C. On a Lusus Nature. By J. H. P.
On Spiritualism, etc. By C. A. W.
On Railroad Rails. By P. M. A. and others.

On Flying Machines. By C. C. M.

Also inquiries and answers from the following: J.-T. L. R.-H. S.-H. W. C. T.-C. A. S.-B.

HINTS TO CORRESPONDENTS

Correspondents whose inquiries fail to appear should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines them. The address of the writer should always be given.

Enquiries relating to patents, or to the patentability of inventions, assignments, etc., will not be published here. All such questions, when initials only are given, are thrown into the waste basket, as it would fill half of our paper to print them all; but we generally take pleasure in answering briefly by mail, if the writer's address is given.

Hundreds of inquiries analogous to the following are sent: "Who makes japanned tin novelties and toys? Who makes watchmen's time detectors? Who makes spring balances? Who manufactures india rubber?" All such personal inquiries are printed, as will be observed, in the column of "Business and Personal," which is specially set apart for that purpose, subject to the charge mentioned at the head of that column. Almost any desired information can in this way be expeditiously obtained.

[OFFICIAL.]

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[Those marked (r) are reissued patents.] A complete copy of any patent in the annexed list, including both the specifications and drawings, will be furnished from this office for one dollar. In ordering, please state the number and date of the patent desired. and remit to Munn & Co., 37 Park Row, New York city. Agricultural boiler, L. & C. Fuller...... 182, 520 Arithmetic case, W. F. Baada 182,515
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