

(39) F. M. W. asks: Is there such an instrument as a night glass? A. The night glass (telescope), properly speaking, differs from the day glass only in the dimensions of its objectives and in some cases the use of an eyepiece of lower power.

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

T. A. H.—Nos. 1, 2, and 3 are sulphide of iron. No. 4 is sand containing sulphide of iron, oxide of iron, alumina, and clay.—D. S. V.—It is chlorite with felspar, and is of no value.—J. S. M.—The presence of the sand is probably due to the decomposition of certain silicates at the source of the spring, the finely divided silica being brought to the surface by the mechanical force of the water, and there deposited. It is not of sufficient purity to be of value even for glass making.—S. S.—The powder consists principally of sesquioxide of iron, together with a little alumina and sand. We found neither gold nor silver.—P., of Gold Hill, Nevada.—It is a clay containing lime. We do not think it contains any metal in paying quantities. A complete analysis would be required to determine all its constituents.—W. H. W.—It is galena, sulphuret of lead.—J. M.—The very small piece appears to be an artificial product. It contains a considerable percentage of copper.—J. McG.—A complete analysis of the beef did not detect any poisonous matter.—J. F. W.—No. 1 is mica schist. No. 2 is hornblende. No. 3 is chrysoprase-chalcedony, whose color is due to nickel. No. 4 is dolomite, a magnesian limestone. No. 5 is rutile—titanic acid. No. 6 is felspar mica. No. 7 is a variety of basalt. No. 8 is quartz. No. 9 is impure clay. No. 10 is granite. Nos. 11 and 13 are semi-decomposed granite. No. 12 is quartz. No. 14 is flint. No. 15 is clay containing iron. Nos. 16 and 17 are hornblende. No. 18 appears to be a specimen of chlorite, a silicate of magnesia. No. 19 is magnesian limestone.—E. E. Y.—It is a talcose rock containing sulphide of iron, which has gradually suffered partial decomposition; it is not valuable.—J. T.—It is an impure clay containing oxide of iron and sand.—A. W. S.—It contains, or has been in contact while heated with, sand or clay. The scoria consists of silicates of lime, alumina, and iron, together with caustic lime.—S. E. E.—No. 1 is hematite—an iron ore. No. 2 contains oxide of manganese.—No. 3 is hornblende.—R. C.—The yellow body is sulphide of iron. The white, carbonate of lime. The hard dark colored piece appears to be chalcedony. The fourth is a piece of scoria.—Cairo, Ill.—It is impure kaolin, a silicate of alumina.—The two specimens in match box, marked "Alpha" and "Clara," are quartz rock and hematite iron ore.

J. C. R. asks: In what year did the grasshoppers commence their destructive work in this country?—W. Z. R. and others ask: What is haitra, which you mention as a new size for cotton cloth?

COMMUNICATIONS RECEIVED.

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

- On the Accumulation of the World. By S. A. On Bevel Gears. By H. E. Also inquiries and answers from the following: W. F. W.—L. W. P.—B. T. K.—P. F.—H. H.—J. B.—W. W. C.—F. M., Jr.—W. D. K.—W. K. P.—M. A. G.—E. G.—P. S. K.

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 cast iron cannon? Who sells sensitive dry photographic plates? Whose is the best photographic apparatus for outdoor work? Who sells varnishes? Whose is the purest white lead?" 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]

INDEX OF INVENTIONS

FOR WHICH Letters Patent of the United States were Granted in the Week Ending August 22, 1876, AND EACH BEARING THAT DATE.

- [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. Addressing machine, J. M. Kennard 181,270 Alarm, fire, A. F. Eells 181,323 Auger, pest hole, L. R. Hitchcock 181,264 B ale tie, W. Wilkinson 181,385 Ba gmanure, etc., J. B. Archer 181,389 Barrel, D. F. Bowker 181,241 rrel, spool, Keese et al. 181,269

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