sizes can be bound together. Detailed reasons for this choice of distances may be found in my article entitled 'Standard covers for temporary binding,' in the *Library journal*, Jan., 1883, viii. 6, 7.

Covers for these pamphlets are punched with holes in the hinge or flap at the same distances, so that all covers fit all pamphlets. One or one hundred pamphlets can be inserted in a cover. The backs are made of heavy manila, as wide as the thickness of the book, with a margin folded over to be punched with holes, so that the back is laced between the pamphlets and the cover. By lacing the backs to the covers first, with thread or otherwise, and then inserting the pamphlets on a separate cord, the covers do not fall away when the binding cords are withdrawn. Of course, if desired, the backs can be glued to the covers.

One objection to Mr. Goode's method of having stubs permanently bound in the covers is, that no such re-arrangement can be made as may be desired. The backs are also of definite width, and cannot be enlarged as may be required for convenience. A pamphlet cover made as I recommend, if not tightly laced, will admit of laying in 50 per cent more pamphlets than are tied in, before it is necessary to rebind.

If for any reason it is desired not to mutilate a pamphlet by making holes in it, it can be glued to a stub, or placed in an envelope glued to a stub, and the stub can be perforated.

Manila sheets can be prepared by the thousand, perforated with the standard holes, and newspaper scraps, etc., mounted upon them as desired, and these bound with the pamphlets. By pasting only on the recto, and marking the guide words or symbols on upper left-hand corner of verso, these words or symbols can be readily caught by the eye as the leaves are turned. When scraps occupy more than one sheet, the several sheets can be glued or tied together, so that they may afterward be handled as units. It will be found better in the end to put but one scrap on a sheet, so that the sheets may index themselves in the arrangement.

Next as to the arrangement and classification. The Dewey decimal classification and relative index is pronounced by many of the foremost librarians to be the greatest invention of the century in library economy. Its applicability ranges from that of assisting the school-boy to keep his notes to that of the president of the Royal astronomical society in classifying his library. Its simplicity is that of the Roman alphabet and the Arabic numerals; its comprehensiveness is that of assigning a subject number, for instance, to the 'spherical excess in the computation of a triangulation in geodetic work,' viz., 52,641; or separately indicating 'songs for male voices' (78,487), and 'songs for female voices' (78,488). Its index, in the new edition just issued, contains nearly 9,000 topics, and three tables allow these topics to be developed fully one hundred fold without loss of simplicity. One reference usually suffices to find the subject number of a topic, and by it a set of ten manuscript notes could be marked so that they need not be marked over to locate them in a library of ten thousand volumes, for the symbols would indicate not only what they were about, but where they were.

The use of this system can be seen in my own library and manuscripts, or in the catalogue I am making of the books and pamphlets in the entomological division of the U. S. department of agriculture. A description of the system is given in chapter xxviii. (pp. 623–648) of the special report on libraries published by the U. S. bureau of education in 1876.

I pay about one cent each for my pamphlet covers, octavo or quarto. They are serviceable, but not elegant, but they hardly show on the shelves.

B. PICKMAN MANN.

## Star catalogues.

Would you please tell me where I could obtain a catalogue of the stars, and what would be the cheapest price I would have to pay? H. C. I.

[If our correspondent would state a little more definitely the use for which the catalogue is desired, we should be glad to give the necessary information. A great number of star catalogues are published, no two just alike. The star list of the *American ephemeris* (to be obtained from the office of the *American ephemeris*, Washington, price $1) would perhaps answer his purpose; while, for identifying the constellations, etc., Heis's *Atlas cœlestis novus* would probably be found most useful; and Webb's 'Celestial objects,' giving a valuable list of colored stars, nebulæ, clusters, etc., should be owned by every one that possesses an astronomical telescope. — ED.]

## Calendar reform.

I notice in the supplement to No. 140 an article on reform in our calendar, by Mr. Paul. He refers to two changes in our method of reckoning time proposed by M. Jules Bonjean, one affecting the monthly calendar, the other the weekly.

Changes in the monthly calendar in past time have by no means been infrequent, but of such a capricious character as to result in great irregularities and an inconvenient arrangement. This is a fair subject for reform by way of simplification. But a change or break in the weekly cycle, for the sake of beginning every year with the same nominal day of the week, is quite another affair. Here we should touch upon questions of religious belief, which cannot be discussed in the columns of *Science*.

But the monthly calendar, being of human devising, is open to improvement. In regard to this, M. Bonjean's proposal and my own, in No. 108 (Feb 27), agree in placing the intercalary day at the end of the year, and in making the months to consist alternately of 30 and 31 days. But he would begin the year by giving January 30 days and February 31, and thus proceed. This method would require a change in the number of days in 8 months out of the 12 in ordinary years. But by beginning the first half of the year with a month of 31 days, and the second half with one of 30 days, as in our present calendar, only 3 months would be changed in an ordinary year, including December; and in leap year only February and July. Thus convenience and symmetry would be secured with the least possible change.

EDWARD P. GRAY.

## The swindling geologist.

A thief representing himself as Leo Lesquereux, jun., and also as one Strong, son of the geologist who was drowned in this state some years since, has been doing this part of the country of late, making way with geological reports, instruments, and specimens. He has been apprehended, and is now in the jail at