

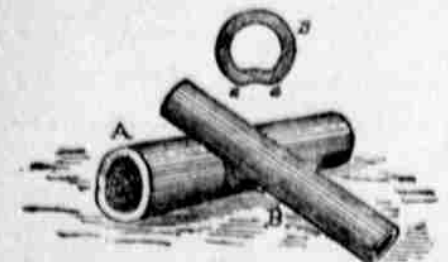
SCIENCE AND PROGRESS.

EVIL EFFECTS OF IMPERFECTLY PRINTED SCHOOL BOOKS.

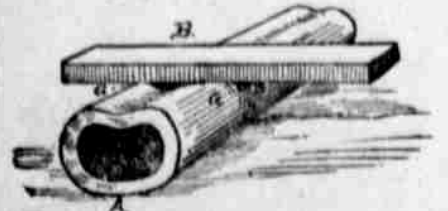
Falling of Earth Worms During Showers.

A Description of Trevelyan's Rocker, with Directions for Making the Apparatus and Experimenting with It.

The Trevelyan rocker illustrated in the cuts can, says Scientific American, be easily made. Following are the explanations and directions given by the journal in quotation.



**FIG. 1.—TREVELYAN'S ROCKER.**  
This apparatus consists of a short piece, A, of lead pipe, about an inch in diameter, and a piece, B, of thick brass tubing, about three quarters of an inch outside diameter and five or six inches long. The lead pipe is flattened a little to keep it from rolling, and the surface along the side which is to be uppermost is scraped and smoothed. The brass tubing, B, is filed thin upon one side, near one end, and the thin part is driven in with the point of a hammer or a punch so as to leave the longitudinal ridges, a, a, as shown in the end view of Fig. 1.



**FIG. 2.—TREVELYAN'S ROCKER.**  
When the brass tube is heated and placed across the lead pipe as shown in Fig. 1, with the ridges, a, a, in contact with the lead pipe, the brass tube begins to rock, invisibly, of course, but with sufficient energy to give forth a clear musical note. If it does not start of itself, a little jarring will set it going, and it will continue to give forth its sound for some time.

The accepted explanation of this phenomenon is that the contact of the hot brass with the lead causes the lead to suddenly expand and project a microscopic distance upward. These upward projections of the lead alternate between the two points of contact, and thus cause the tube to rock with great rapidity and regularity.

In Fig. 2 is shown a modification of the experiment in which the lead is indented to form the two contact surfaces, a, a, and the heated bar, B, is made to rock at a comparatively slow rate, giving forth a grave note. By careful manipulation, the bar may be made to rock both longitudinally and laterally, thus giving forth a rhythmic combination of the two sounds.

Do Worms Fall During Showers?

In reply to the above query, a correspondent in Popular Science News expresses his belief that worms do fall down. He claims to have repeatedly seen these earth worms in caldron kettles, suspended on long poles by balls of chains, and having no connection with the ground only through the ball or chain, and the pole and its rests; and in many other situations where it was impossible for such worms to get without falling down, as in sap troughs, and buckets, tubs, pans, etc. A fact in connection with these circumstances is, that, unless discovered in a short time after getting into these vessels or traps, they are dead—drowned, probably; showing that they are incapable of climbing out of the inclosing wall, whatever it might be, as a ball or pan, inclined outward, which they must have ascended in an opposite inclination from the outside, if we suppose the worms helped themselves in by crawling up from the ground. This correspondent has seen these worms in quite cold weather, under the circumstances noted, but they have been of more frequent occurrence in warm weather.

A Sensible Precedent.

The Austrian minister of public instruction has issued a very sensible decree, forbidding the use of books printed with small type in public schools, as short-sightedness is so prevalent among school children in Austria. Scientific supervision might very properly be given to school books in this country, attention being especially directed to the size of the type, length of line, and spacing of letters and lines. The chief fault in German books is their adherence to the very dandling Old English shape of the letters, which severely tries the eyes by necessitating very close attention, and the evil effects of this is aided by the paper being coarse and by the light supplied being usually insufficient. Generally speaking, the school books of this country are well printed.

To Restore Stone Steps.

To restore stone staircases, of which the steps have become worn, a French journal advises that the worn parts be moistened with a solution of silicate of potash (soluble glass), and then that the step be given its original form by means of a paste composed of hydraulic lime and silicate of potash, to which 50 per cent. of fine silicious sand is then added. The durability of the steps thus restored, it is claimed, is comparable to that which would be obtained with the best stones, and the adhesion of the added part is perfect.

Salicylic Acid and Dry Rot.

A Bohemian chemist has proved that salicylic acid is a preventive and cure for dry rot. At first the acid was used in the dry or powder form, but latterly the greatest success has been achieved, according to Professor Parksky, by dissolving five ounces and a quarter of salicylic acid in one quart of common spirit, and diluting this solution to a convenient degree with water at the moment of using it.

Velocity of Torpedoes.

Professor Meek, discussing in the American association the velocity of torpedoes, mentions that straws and bits of hay are often driven like darts into pine boards, and even into the dense bark of hickory trees. He had found that to obtain similar results by shooting straws from an air gun, velocities of from 150 to 175 miles an hour were necessary.

Exercise in the Open Air.

Weak nerves are the constant companions of inactivity. Nothing but exercise and the open air can strengthen the nerves and prevent the diseases that arise from their relaxed state. The active and laborious seldom complain of nervous diseases. Such complaints come from people of ease and affluence. Active diversions are necessary, not sedentary ones. The latter do not fill the lungs with fresh air or add brightness to the eye or strength to the muscles.

ALL AROUND THE HOUSE.

A Charming Vine for Ornamenting the House—Fashions in Clocks.

Treated around the casing of windows, English ivy forms a charming framing, or it may be carried around picture frames and mirrors. In training the ivy, stretch a small copper wire, and tie the stems to that, then should you at any time wish to remove them out of doors it can be done more readily. If you wish to start cuttings, place them in a jar, or bottle of water. When roots are formed put them in a rich soil without stimulating manure, and water them freely. Put gravel in the bottom of the pot for drainage.

Delicious Confections.

For the "foundation" to be used for various kinds of confectionery, take one pound of confectioners' or granulated sugar, one-quarter teaspoon of cream of tartar, one gill of water. Mix all together, and cook fast in a broad bottomed granite or tin vessel until the syrup will spin a thread, or, when cool, it will work nicely in the fingers. Set aside in same pan to cool fifteen minutes. Then stir with a spoon until it is cool enough to be molded into shape.

For chocolate creams—Mould the "foundation" into small balls; set aside until cold. Then roll in melted bakers' (not sweet) chocolate and place on buttered paper.

For stuffed figs and dates—Split the fruit and fill with the "foundation."

For concealed almonds and cream nuts—Cover with the "foundation" and press into shape. English walnuts in halves laid on a roll of "foundation" are delicious.

For tutti-frutti—Chop raisins, figs and almonds together, mix with "foundation" into balls. Flavor the different candies to taste; while stirring, add extracts.

To Wash Woollens Successfully.

According to Dr Jaegar the main points to be observed in washing woollen goods are:  
1. A perfect solution of soap. (If soda soap be used the liquid ammonia should be added. It is better, however, to use ammonia soap.)  
2. Always keep the temperature below 110 degs. Fahrenheit.

3. Never wring the articles, but take them from the water dripping wet and hang them up to dry.

4. Iron while still damp, stretching the articles to the required length and width. The iron should not be too hot; never hot enough to crinkle an animal fiber like a hair or bristle.

5. No soda or lye should be used.

How to Cook Salt Salmon.

Take a piece of the salmon as large as required for use, place it in a pan of fresh water until it is thoroughly saturated the evening before the day you intend to use it; then allow the water to drip from the faucet on the salmon in the pan for twelve hours, say over night, the pan remaining in the sink so that the overflow can be carried off. By this time it will be fresh enough to be palatable. The salmon should then be dried with a dry towel, and then broiled on a grid-iron over a quick fire, or fried as in the ordinary manner of preparing other varieties of salt fish, or it can be boiled and served.

Liquid for Sponging Coats, Etc.

For sponging coat collars, and for cleaning and washing all kinds of woollen goods, soap bark is excellent. Put an ounce of the powdered bark into a bottle, and pour over it a pint or more of boiling water. When it settles use the clear liquid to sponge with. Flannel and other woollen dresses may be washed without injury to their color by preparing sufficient of the soap bark liquid, and adding to it the wash water in place of soap.

Breast of Veal with Tomatoes.

After wiping a breast of veal with a wet cloth, lay it in a small dripping pan, and brown it quickly in a hot oven. Meanwhile peel and slice a pint of tomatoes, or use those which have been canned; when the veal is brown season it highly with pepper and salt, pour the tomatoes over it and bake until the meat is well done. Serve it with the tomatoes on the same dish.

Modern Clocks of Many Styles.

An indispensable attachment to the modern high class clock is a set of chime bells. These are arranged in various ways, the gong being most used. The latest improvements consists of a row of silver pipes, producing a clear, musical tone not unlike a fine silver bell. This form of chimes is suitable only for large or hall clocks.

The large hall clock is every year coming into more general use, and families who have ancestral timepieces of this sort are congratulating themselves on the possession of valuable relics. New clocks of this description are copied after various antiques. Mahogany, cherry, rosewood, oak and walnut are used; also thin woods with fine enamel and veneers.



LOUIS XV CLOCK IN BRONZE.

In smaller clocks there are many especially attractive novelty designs. A light house has a dial in one side and a miniature flash light upon the left, the light revolving with the motion of the clock. A windmill, with a window in one side, has a clock dial set in the casing. The arms turn by means of wheels attached to the running gear. A trip hammer is similarly constructed and operated, the hammer falling upon a bar of metal held by a workman.

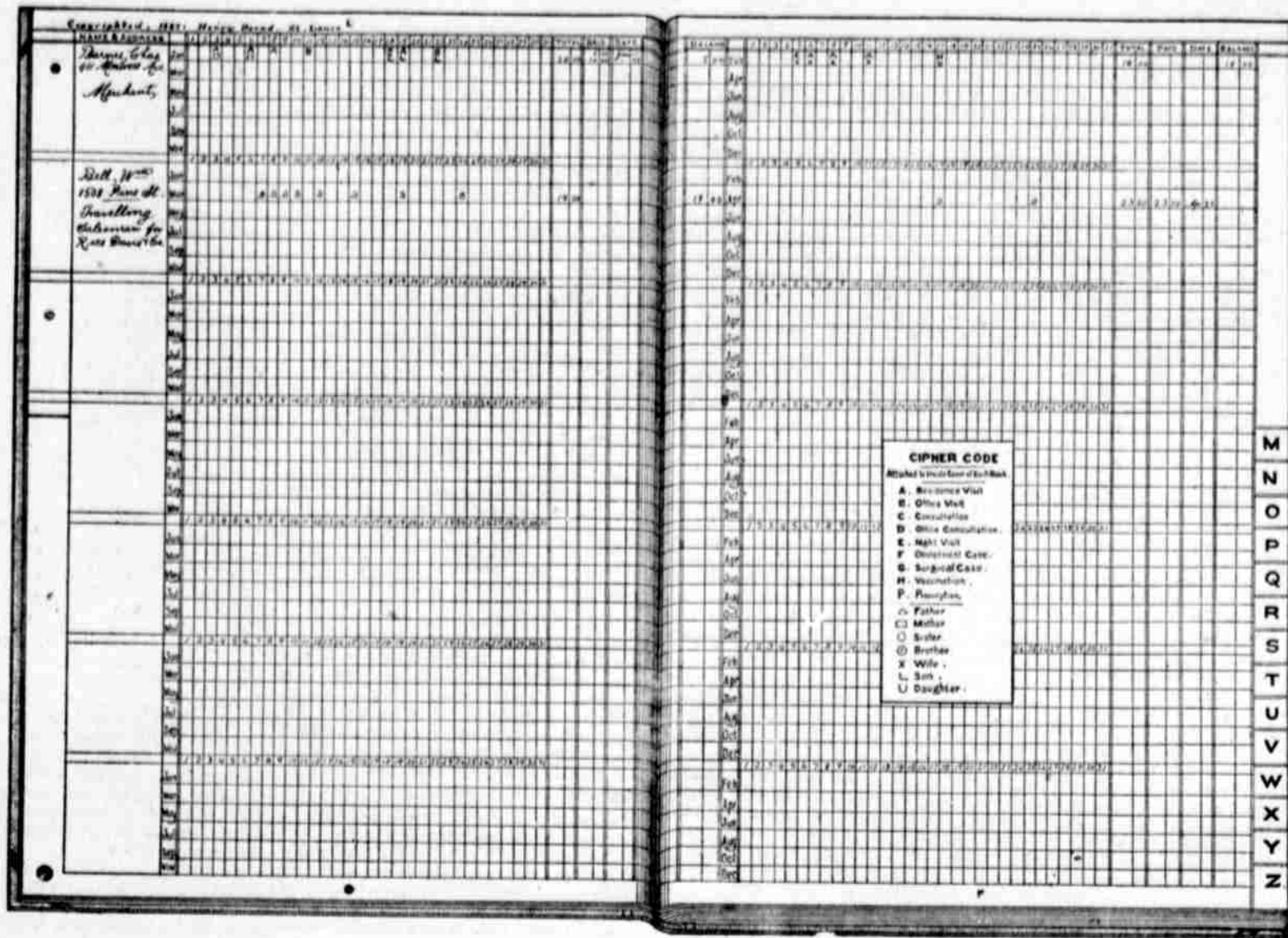
Clocks in form of helmets are popular among those who are enthusiasts on armor.

Onyx and gold clocks are particularly beautiful, and are shown in great variety. Polished columns support arches where the works are placed; a solid block of onyx is hollowed out, and a spring clock is set in the circular opening. A pyramid has a clock set in near the top, and an old mill has a clock under its eaves, and turning a paddle wheel below.

Brass clocks are popular, and gold and fine decorated China cases are in high favor. The above items, as well as the cut of a bronze clock, chased and gilded, are included in a description, by Decorator and Furnisher, of elegant and curious clocks of the present.

A BOON TO PHYSICIANS.

Bernd's Physician Office Register



The above cut shows Register open. The book is prepared with especial reference to improving the system of recording calls, visits, etc. It is complete, simple comprehensive, and as a labor saving method of keeping accounts, will at once commend itself to every Physician in the land. Your attention is called to the fact that the account against a patient for an ENTIRE YEAR is contained within a space three inches in width.

This book is 12x17 inches; contains 100 pages; each page divided into 7 spaces, thus providing for 700 accounts, contains a condensed cash account showing (on one page) cash receipts from both "regular" and "transient" patients for each day in the year, besides 4 additional ruled pages for memoranda, such as "the address of nurses, future engagements" "private consultations," etc., etc. The book is alphabetically indexed on linen tabs, substantially bound Russia back and corners, cloth sides, spring clip, and nicely finished.

Prices, 700 Account Office Register, \$5.00. 1400 Account Office Register, \$8.00

BERND'S POCKET REGISTER.

Its Advantages are as Follows:

- o Posting—No Transferring—No Indexing.
- 2d. One Writing of Patient's name for entire year.
- 3d. It enables you to keep the run of your accounts without referring to auxiliary books.
- 4th. Can be commenced at any time during the year.
- 5th. The price is far below the cost of keeping accounts in the old style, viz: Visiting List, Journal and Ledger—this book combining all three.

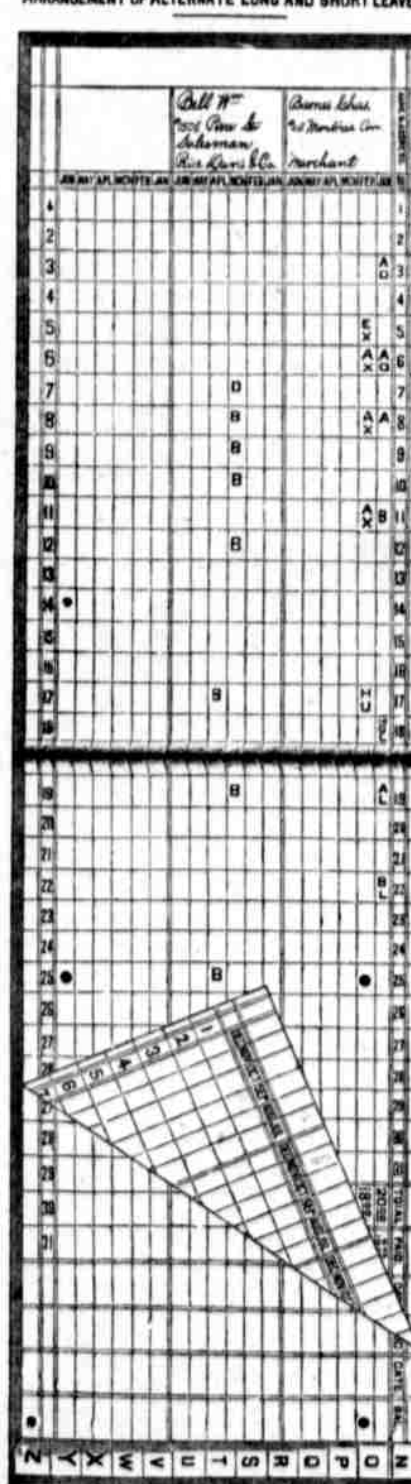
This cut shows book open, with example similar to that shown above. Cipher code is embossed in gilt on inside of cover. The Register when closed is 4x7 inches, convenient size to carry in pocket. The lines of the short leaf are adjusted to the long. When the short leaf is turned to the right, the first half year is visible. The Book is Gilt Edged, bound in Black Seal—flexible—with inside pocket and elastic tablet. Contains condensed cash account, showing at a glance Receipts from Regular and Transient Patients for entire year—besides eight Memorandum Pages, Pencil and Holder, and is closed by a Silk Elastic Band.

Extracts from a Few of the Many Letters Received,

- I am gratified to say that for the first time in long years of practice, I am able to keep my accounts without having to suffer the drudgery of cumbersome book keeping.—Dr. H. Tuholke, St. Louis.
- It is just the thing I want.—Dr. G. Swan, Hartford, Connecticut.
- The book is a treasure to any busy Doctor, it saves an amount of tedious work at the end of the month which is particularly agreeable.—Dr. E. A. Chapoton, Detroit, Michigan.
- I have lost enough this a. m. to pay for the book, having to make out an account in haste.—Dr. Jno. Boardman, Buffalo, N.Y.
- It is by far the most complete work of its kind I have ever met with—shall take pleasure in recommending it to my friends in the profession.—Dr. S. H. Chester, Kansas City, Missouri.
- I regard it as the only Register in use adapted to the Physician's requirements.—Dr. J. T. Kent, St. Louis, Missouri.
- For the past fifteen years I have used several kinds of Registers, all very good, but none beginning to compare with that purchased from you.—Dr. W. C. Barker, Hummelstown, Pennsylvania.
- I have found it useful and exceedingly convenient.—Dr. Benj. T. Shimwell, Philadelphia, Pennsylvania.
- I must congratulate you on the introduction of such a perfect method—every member of the profession should extend to you their appreciation by adopting the same.—Dr. Wm. Bird, Chester, Pennsylvania.
- I would not do without it for fifty dollars a year.—L. W. Clark, Rushville, Illinois.

PRICES, 300 Account Pocket Register, \$3.00. 440 Account Pocket Register, 4.00.

SECTIONAL VIEW SHOWING ARRANGEMENT OF ALTERNATE LONG AND SHORT LEAVES



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Western Agents,  
LINCOLN, NEBRASKA.

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