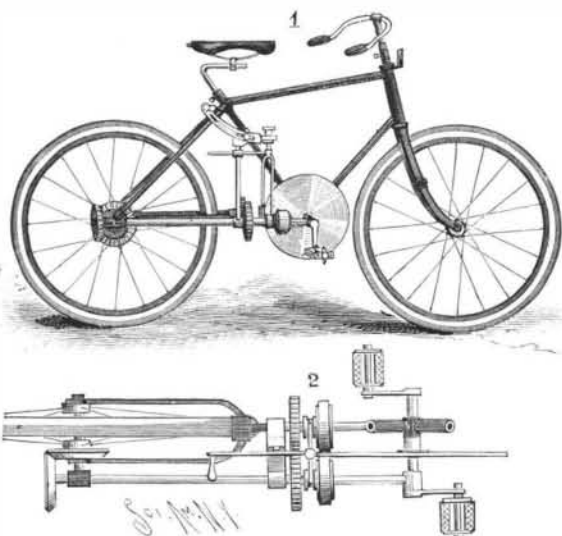


A VARIABLE DRIVING GEAR FOR BICYCLES.

The illustration shows a simple construction of variable driving mechanism by means of which a bicycle may be driven slowly with great power, as necessary in going up hill or over rough roads, or may be pro-



EISENHART'S VARIABLE DRIVING GEAR FOR BICYCLES.

pelled with greatly increased speed, as is desirable on good and level roads, without changing the speed of the pedal shaft.

The improvement has been patented by Mr. Samuel C. Eisenhart, of York, Pa., P. O. Box 72. Fig. 1 illustrates the application of the improvement to an ordinary safety bicycle; Fig. 2 being a plan view. On the pedal shaft is a friction disk whose sides may be

covered with rubber, leather, or similar material, if desired, and this disk is engaged by friction rollers keyed to and sliding on horizontal shafts supported in ball bearings carried by the main frame.

The shafts are connected by meshing gear wheels, and the shaft on one side serves as a driving shaft, extending backward to the hub of the rear wheel, with which it connects by bevel gears.

The friction rollers have grooved hubs in which fit the prongs of a fork, whose upper end is coupled to a curved and longitudinally slotted plate having at its rear end a handle within easy reach of the rider.

The plate rides on a flanged guide roller held in the slot of the plate and fulcrumed at one side of the frame, and the fork is further guided and braced by a guide bar, which slides in a bearing or sleeve at the upper end of a post having feet journaled on the shafts which carry the friction rollers.

In propelling the machine, as the rider moves the friction rollers in toward the hub of the disk the speed diminishes, the reverse movement increasing the speed, the rollers being moved by grasping the handle and pushing the plate backward or forward as desired.

The invention also provides for a lighter form of driving gear in which only one friction roller is employed.

Milk Tickets as a Medium of Infection.

In an ordinance recently adopted by the council of Menominee, Mich., to regulate the selling of milk, a good point is made in giving protection against possible infection through the medium of milk tickets.

Section 11 provides that "No licensed milk dealer

shall receive compensation in tickets from houses or premises which are placarded by the health officer until such placard has been removed, and all tickets found by such licensed milk dealer in such houses shall at once be destroyed by burning the same and new tickets issued in place of such as shall be found in infected houses. All milk tickets shall bear date of first use and be destroyed within three months."

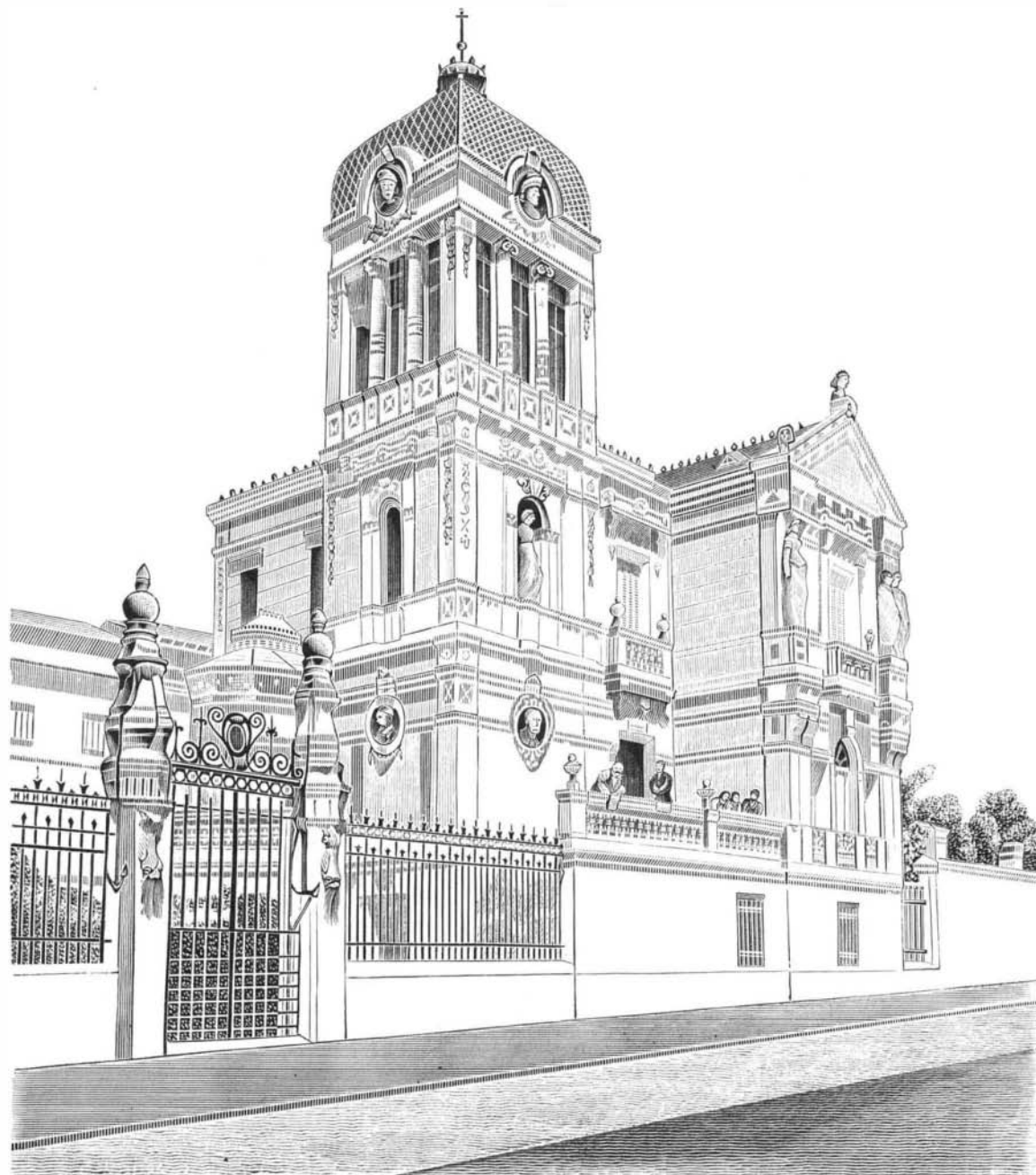
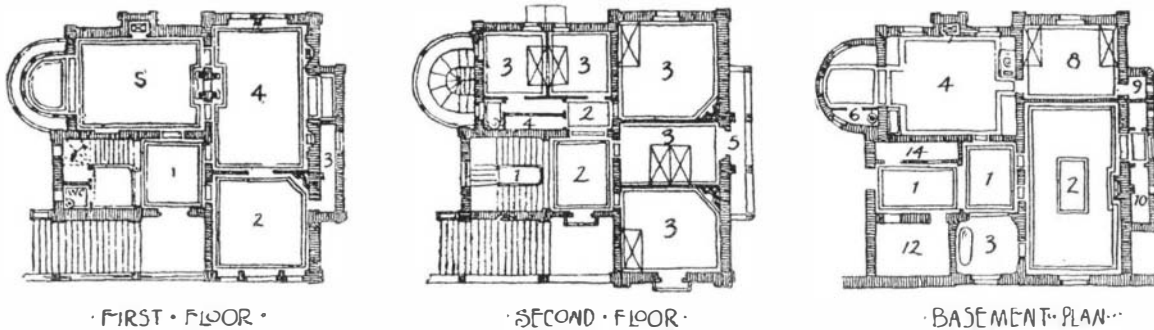
What about soiled milk tickets or fouler money being left in the empty milk pails for the milkman?

This is in line with the action of the health authorities of Urbana, O. An order has been adopted prohibiting the use of theater tickets brought from some other city, the manager of each troupe being compelled to issue new tickets for the people of Urbana.

It is certainly well that every possible avenue of contagion should be guarded as closely as possible; but what is to be done with our dirty paper currency?—*American Analyst.*

The Mystery of Mind.

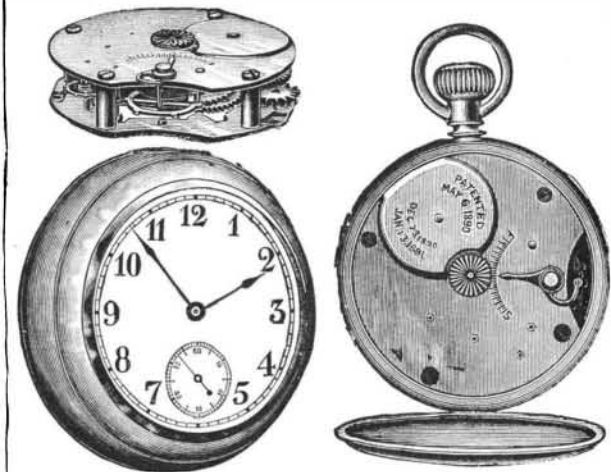
Mr. Lester Ward, in a lecture on the "Status of the Mind Problem," recently delivered before the Anthropological Society of Washington, showed that the work of Ramon y Cajal and others indicated that protoplasm is not merely the physical basis of life, but is the physical basis of mind also. In his words, "the prevailing fashion among scientific men of emphasizing the 'mystery of mind' is unnecessary and illogical, since mind is no more a mystery than matter, and all that there is any ground for confessing is that, in consequence of the greater complexity of mental phenomena, due to the higher state of development of the material basis of mind, we possess as yet much less knowledge of them than we do of many of the simpler phenomena of nature."



HOUSE OF SENOR SARACIBAR, ARCHITECT, SALAMANCA, SPAIN.

A LOW PRICED STEM WINDER.

The watch shown in the accompanying cut has been selected to illustrate the extremely low cost at which the modern American watch, with all the latest improvements, may be produced. This watch is put on the market by Messrs. R. H. Ingersoll & Brother, of 65 Cortlandt Street, New York, at the extremely low



THE "CLIMAX" WATCH OF R. H. INGERSOLL & BROTHER.

price of \$2. It is a stem winder, while the setting arrangement is shown in the cut in the center of the plate.

The regulating device does not differ from that usually employed in high priced watches. The movement itself is a three-quarter plate, quick train, American lever movement. The short wind is one of the valuable features of the watch.

The watch is extremely light, weighing only 3 3/8 ounces, will run 30 hours with one winding, and is incased in a gilt or nickel case, plain or chased. A well made chain accompanies each watch. A general idea of the appearance of the watch may be obtained from our engravings, which are three-fourths actual size.

Over 1,400 watches are produced daily at this factory, or between two and three watches a minute, during working hours. It seems very extraordinary that a real watch can be produced, which is capable of regulation, so that it will keep excellent time, for such a small sum of money. The "Climax" watch is guaranteed to run satisfactorily to the purchaser for one year. It is a watch that ought to suit everybody.

HOUSE OF SENOR SARACIBAR, ARCHITECT, SALAMANCA, SPAIN.

A recent number of the *American Architect* contains a sketch and description of a newly erected house in Salamanca, which we here reproduce as an example of recent Spanish architecture in the line of private residences. Our cotemporary says:

In the broad and aristocratic district of Salamanca, and at the end of Claudio Coello Street, has been erected an elegant and artistic house, called "Villa Bilbao," which was designed for his own occupancy by Senor Julius de Saracibar, a well-known Spanish architect, who has passed the best part of his life erecting and embellishing the dwellings of many other persons, and has at last been able to construct his own, being able in it to display his genius and his skill as a constructor.

This residence occupies