

Some Reasons Why Her Sons Have Ceased to Emigrate.

"Legislative enactments are intended to be genuinely operative and not merely expressive of moral sentiment. The measures are first drafted by men qualified by experience as well as study and who can be trusted to make the actual purpose unmistakable."

Fearful Mortality From Snake Among Natives of India.

The total mortality among human beings caused by snake-bites rose from 21,364 to 22,478. An increase in Eastern Bengal and Assam is attributed to snakes being driven by high floods to take refuge in the raised village sites.

A Jewish Suburb of Jaffa Built With Western Rapidity.

These Jews, who have been used to a life of comfort in Europe, have joined some of the old settlers and have founded a new suburb, a new town really, near Jaffa, which they named Tel-Aviv. This town, built on the American style, inasmuch as it sprang out as if by magic within one year of the sand of the seashore, is very beautiful. It is well planned, has wide paved streets lined with trees, every house is fitted up with water pipes and bathrooms, and they are built in a specified Oriental style, surrounded by a garden.

It is in all something of which the Jews in Palestine are justly proud. The Arabs and the European Christians were astonished at the remarkable achievement of the Jews, and their envy is genuine. All the residents of Jaffa, Christians as well as Mohammedans, take their holiday walks in Tel-Aviv.

The gates of this suburb are closed on Saturdays to prevent the entrance of vehicles, although the majority of its inhabitants are not religious, but the Jewish Sabbath is accepted by all as a holy day of rest. The atmosphere in Tel-Aviv is naturally entirely Jewish, and the Hebrew language in its beautiful Oriental accent is heard on every side.

On the main street, the Herzl street, that leads to the sea, was built the Gymnasia Ibrith (the Hebrew high school) of Jaffa, a fine building in Oriental style. A cornerstone was recently laid in this same suburb for a large synagogue which will be owned by the Jewish community of Jaffa. Tel-Abib was built through the assistance of our National Fund, which granted a loan for this purpose of about a quarter of a million of francs, to be repaid with interest in instalments.

A similar suburb is now being built, with the help of the Nations Fund, in close proximity to Tel-Aviv. Jerusalem, too, has a few new Jewish suburbs around the old town built mainly by Jewish teachers for their personal use with the help of the "Hilfsverein" of Germany. In Haifa also lots are being acquired by Jews for building purposes around the site of the Jewish Technical Institute and a suburb on the plan of Tel-Aviv is projected there.

SPLENDID RESULTS OF HUMAN INGENUITY.

**The Field of Applied Science Has
Profited Greatly by the Cleverness of man.**

Electricity seems to have been successfully harnessed to all uses for which it appears at this time to have been adapted, for while it is being utilized to further advantage every day, yet it is along the same lines which we have been following for some time, and if we have but lately discovered that street cars can be run by the aid of storage batteries and without the necessity of overhead wires, we have been using both electric street cars and storage batteries for other purposes for a long time. We have lighted our railway coaches, sleepers and diners with electricity; we have installed electric fans in these cars, but we had both the lights and the fans years ago. We have not invented anything new, but we have been the cause for something we already possessed, and we have improved upon

OUR FORMER METHODS.

Let us consider for a moment the other things that we have had for some time, and are enjoying at this very moment. We have of course the motor car, with its enormous power and its high speed; the motor rail, the turbine steamship, wireless telegraphs and wireless telephones; telephotography for the transmission of pictures and photographs by wire, and even without wire; television, which enables one to see a perfect reflection of the person with whom he is conversing on the telegraph typewriter, which enables us to write upon a typewriter from any conceivable distance. We have bottled sunshine delivered every morning at our doors the same as the bottled milk. We can buy music by the meter like gas or water. If you don't care for the music box you can have a phonograph, and if you don't care to go to the opera or if you can't afford to you can sit at home and write letters while Caruso or Constantino sings for your amusement as many songs as you care for and as often

as you care. If you can't play the piano you can sit on a stool and work your feet on a piano board and have canned music by the yard or as many yards of perforated paper music as you can pay for.

Transportation facilities both on land and sea have improved wonderfully. With the submarine man has invaded the depths of the sea, sinking, rising or traveling in any desired direction. Securely hidden below the surface, the operator of the submarine looks into his periscope and observes all that is going on around him above water for a radius of several miles. We have color photography and we have motion pictures, and, better still, we have colored motion pictures.

PERPETUAL MOTION

yet remains to be discovered is the closest thing that we have to it is a timepiece devised by the Honorable R. J. Strutt, the son of Lord Rayleigh of London. It consists of two leaves of aluminum, an exhausted glass tube and a fraction of a grain of radium. The apparently inexhaustible radio-activity of the radium causes the aluminum leaves to move once in a minute and with a wireless coherer a bell rings at each movement. For 10,000 years at least the wonder-fully sensitive instrument will indicate the passage of time, and the small piece of radium will, if carefully calculated, continue to act and do nothing whatever needs to be done to the clock once it is set going.

One of the important improvements in aerial telegraphy makes it possible for four operators to send and receive messages simultaneously from the same aerial station. One of the first obstacles to a completely successful operation of wireless telegraphy was the dis-

Wireless is also adding another safety device for the protection of travelers on the railroads. This is to be accomplished by means of a device similar in principle to the one used on the coast guard cutter, the *Marine Signal*. In use on a locomotive it will tell the engineer with unfailing certainty of the approach of another locomotive or any obstruction on a track for a distance of two miles. Wireless telegraphing on trains going at the rate of 60 miles an hour has been successfully achieved on the flyers of the road running between New York and Chicago. A device for the prevention of train collisions has been successfully tested on the tracks of the Erie Railroad between Newark and Monticney, N. J. The device is electric one and is intended to obviate

HEAD-ON COLLISIONS

When the fast approaching train is equipped with the new device, each within a half mile of each other, the air brakes are set automatically, not with the usual suddenness in emergency, but with a gradually increasing force, the same as a skillful engineer would put them on. The trains stopped far from each other to avoid mishaps, and all this happened without the driver's touching toward the throttle, lever or air brakes, the device working automatically. The invention is operated by a third rail, the above from the locomotive touching the rail and receiving power through it, both for the operation of the emergency brake and also for a telephone. The principle is similar to that of the signaling system, the track being divided into sections, the operation may be graduated so that the train may be slowly stopped.

It appears from the progress made in wireless telephony that it is but a question of a short time when we may speak to each other in the various sections of the city or even in distant places. During recent experiments conversation has been held between persons overland at distances ranging from a few miles to 100 miles. Some of the warships of the great powers have already held conversations with the land over 100 miles away. The development of the wireless telephone that is promised is the transmission of melodies from the opera house direct into the home. There is to be accomplished by a large wireless transmitter hung in the tower of a radio station, the flash of the musically charged electric impulse that is to be caught up and enunciated through a receiver installed in the house.

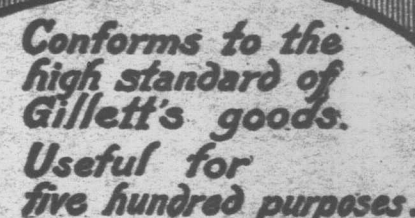
ANOTHER WONDER

of the release is the transmission of electrical energy or power. Experimenters declare that the time need not far distance when the meteors supplying the propulsive force for the screws of aeroplanes will receive their power through the air from stations at many points in the country. "We already have the submarine torpedo that is controlled from shore by wireless. Its course being directed hither and yon at the will of the man in the land station with absolute accuracy. We have planned in many of the great harbors of the world submarine mines that could be exploded from shore at will, and the approach of the hostile fleet. We have the electric magnets that pick up hundreds of thousands of tons of steel as though it were but child's play. These are installed in all the great shipyards of the world. We have the X-ray and the Roentgen ray, that pierce our bodies and cure our ills without the necessity of surface incision."

The discovery of telephotography, the transmission of pictures by wire to a distance, which was first made practical in 1906 by Professor Koenig of Munich, foreshadowed the distant possibility of an even more marvelous discovery—the transmission of moving pictures to distance. Several years later, when first suggested, this instantaneous reproduction upon a distant screen of the moving features of a living face—the gestures, expressions and attitudes of a person far away, at that very moment that he was making them. But this dream has now been realized. The first steps have already been taken for his remarkable work in telephony and wireless telegraphy has made the first apparatus which actually solves the problem of

SEEING AT A DISTANCE

The first machine consist of a screen composed of 25 sections, behind each of which are placed exceedingly sensitive selenium piles. These selenium piles are so sensitive that they react to the slightest variation in the light which strikes them. One of these screens is placed at the sending station, and each section of one screen is connected electrically



GILLETTS
PERFUMES
LIVE

LOST EMERALD MINE FOUND

Old Spanish Workings in South America Promise Many Gems.

"The continued increase in the values of emeralds during the last ten years—until at present they out-rank diamonds—lends considerable interest," says the Mining and Engineering World, "to the recent rediscovery of one of the old Indian emerald mines in the South American Andes which was lost for over a century.

The real emeralds, as distinguished from Siberian stones, which are not at all comparable in beauty to the South American gems, are entirely produced from one mining district called Muzo, in the Republic of Colombia. South America

"The gem was mined by the native Indians for centuries prior to the discovery and conquest of the plateau of Bogota in the Andes, and the Indians operated three mines widely separated geographically named Muzo, Cosquez, and Somon-doco.

"About 1555, under Capt. Pedro de Valenzuela, the Spanish conquistadores took over the mines, enslaved the native Indians, and compelled them to work the mines. So eager were the Spaniards to get rich quickly that atrocious cruelties were practised on the Indian workers, and this was carried so far that finally the priests complained to the Crown (King of Spain) that the innumerable deaths of the Indians employed in the mines adversely affected the ecclesiastical revenues."

"This resulted in the importation of African negroes, but eventually the mines were partly closed. During the War of Independence in 1821, and later the whole region was so desolated that two of the mines, Cosquez and Somondoco, were entirely lost, and Muzo has produced all the gems since that time.

"It has been prolific, but the output has been steadily declining during the last ten years, and according to the very best information the ultimate practical abandonment must come in the near future, unless new veins are uncovered, which is deemed improbable by the English engineers formerly in charge of the workings.

"For several years a Colombian named Francisco Restrepo, guided only by a few hints contained in ancient Spanish parchment maps at the Government archives in Popayan, wandered far and wide looking for the lost emerald mine of Somondoco.

"Senor Restrepo knew nothing of geology nor emeralds, yet in 1896 he came upon traces of ancient workings, and later uncovered very extensive workings, which proved

to be the real treasure trove, the lost emerald mine of Somondocot, which gives every promise of duplicating the wonderful record of Muzo, which probably was \$2,000,000 to \$4,000,000 annually for a century and for unknown centuries in pre-Spanish times."

THE HAPPY FARMER BOY

**Country Youth's Daily Round of
Pleasure.**

"I'd like to be a boy again without a woe or care, with freckles scattered on my face and hayseed in my hair.

"My father like to rise at four o'clock and do a hundred chores, saw wood and feed the hogs and lock the stable doors, and herd the hens and watch the bees and take the mule to drink, and teach the turkeys how to swim so that they wouldn't sink, and milk about a hundred cows and bring the wood to burn, and stand out in the rain all day and chase the churning wheel and wash my brother's cast-off clothes, and walk four miles to school, and get a licking every day for breaking some old rule, and then get home again at night and do the chores some more, and milk the cows and feed the hogs and carry mules galore, and then crawl wearily upstairs to seek my little bed, and say: 'This is the life of a worthless boy! He isn't worth his bread.'"

"I'd like to be a boy again—
boy has so much fun. His life is
just a round of mirth from rise to
set of sun. I guess there's nothing
pleasanter than closing stable door
and herding hens and chasing bee
and doing evening chores."