

EDWARD BALLAMY'S DREAMS REALIZED

DYNAMOPHONE PERFECTED
NEARLY 100 YEARS
AHEAD OF HIS
PROPHESIED DATE

Edward Ballamy

DREAMS are coming true very rapidly these days. Fact is outstripping fancy and truth is displacing fiction to a extent positively bewildering to him whose eyes are open to the scientific wonders of the day.

Just twenty years ago Edward Ballamy wrote "Looking Backward." Few books ever published have been more widely read. It was interesting then because it was such a deliciously daring journey into dreamland. Ballamy "looked back" from the year 200 and described the transformed civilization as he found it in Boston after his sleep of 113 years.

In 1887 the book was interesting because of the marvelous inventions the author dreamed would come into use in a little more than a century. It is interesting today because in less than two decades many of these creations of fancy have crystallized into realities, and some of them have been developed far beyond the wildest flights of Ballamy's imagination.

One of the most striking illustrations of this is the final perfection of the dynamophone, a wonderful electrical invention for producing scientifically perfect music which is now being installed in a building not far from the Metropolitan Opera House, in New York. When installed, the great musical invention will supply over telephonic wires all kinds of music, not only to homes, theatres and churches in the city, but its production will be transmitted to adjacent localities wherever high grade music is desired at a nominal cost.

One of the most interesting chapters in "Looking Backward" was a description of just such a distribution of music as this. When the author awakened from his long sleep he found that residents of Boston no longer left their homes to enjoy the best music. At any hour of the day or night one had but to touch a button and the room was flooded with any sort of music one desired. But this music proceeded from central music rooms in various parts of the city, where trained musicians were constantly employed, the strains of their instruments or voices being simply transmitted over wires.

Here is an instance where the reality of 1906 has far eclipsed what Ballamy dreamed would be accomplished in 2000. Dr. Thaddeus Cahill's dynamophone does not transmit the music of an instrument from an orchestra, but it creates the music to be more perfect and pleasing than is possible to produce with voices or musical instruments and sends it over the wires with undiminished volume and tone. It is an instrument which builds up tone from electrical vibrations, requiring hundreds of dynamos to produce the results. Dr. Cahill has been at work on it for many years, and the first instrument, which is now being installed in New York, will cost more than \$200,000.

Several trained musicians to operate it, through the medium of a great keyboard, and in the opinion of experts, bids fair to revolutionize the musical world.

In the July number of McClure's Magazine seven pages are devoted to a description of Dr. Cahill's invention. About the same amount of space was given in Ballamy's book to substantially the same creation, but which existed only in his imagination, twenty years ago. The words by side, the words describing the reality are like an echo of the language of the dream.

In "Looking Backward" the author employs a thread of romance to carry the story. He describes himself as awakening from his century's trance in the home of Dr. Lee, of Boston, after having been discovered in a cataleptic state in a subterranean room. By degrees the new conditions of the year 2000 were explained to him by members of the household. Dr. Lee had a very beautiful daughter, Edith, and it was she who conducted him to the music room, and who gave him a description of the new musical system in her words to him.

turn on the music. . . .

Of course, the same selections performed by the musicians go over the wires at the same time, so that you and I may sit in our homes and hear the same music that is being produced in the churches, or in the evening, dining at the restaurant, we may enjoy the identical selections given in the opera house or theatre.

"We may be awakened by appropriate music in the morning and go to bed at night with lullabies—sleep music being a department in musical composition which has been sadly neglected. It would be difficult to produce more exquisite effects than Dr. Cahill gets in such selections as "Fraymote." . . .

As the machine is developed and as the system becomes more expert we may expect a new era of music, what may be called, indeed, the democracy of music. We cannot

twentys-four hours. . . .

Crossing the room, so far as I could see she merely touched one or two screws and at once the room was filled with the music of a grand organ anthem-filled not flooded, for by some means the volume of melody had been perfectly graduated to the size of the apartment. . . .

Again, the sound of violin filled the room with the witchery of a summer night. . . .

"Our people here all night, but if the music were provided from midnight until morning, it still would be for the sleepers, the sick and the dying. All our beds in numbers have a telephone attachment at the head of the bed by which any person who may be sleeping can command the music of pleasure of the sort suited to the mood. . . .

"Please look at today's music," she said, "and tell me what you would prefer. It is now five o'clock you will remember." . . .

We welcome the new era with eagerness. It has a great place to fill; it may revolutionize the musical art; but in accepting the new we shall not give up the old.

really herald the complete dominance of democracy until we have good music, great pictures and the best books at the command of every citizen. . . .

The first impression upon the listener is its singular difference from any music ever heard before in the fullness of its tone. . . .

"Of course," she said, "we all sing nowadays, as a matter of course in their private amusement, but the professional musician is so much grander and more perfect than we all sing nowadays, that we wish to hear it. . . .

mechanism of the dynamophone. . . .

Dr. Thaddeus Cahill

Operating the dynamophone.

Electricity in smelting.

Mechanism of the dynamophone.

Electricity in smelting.

Mechanism of the dynamophone.

Electricity in smelting.

Mechanism of the dynamophone.

A Scientific Defence of Tobacco---Cigarettes Declared the Safest Form of Its Use

By Van Zandt Wheeler.

TOBACCO, if used judiciously as a stimulant of common sense, whether by man or woman, is the most beneficial and healthful of all the various forms of tobacco. It is the only form of tobacco which produces a narcotic effect. Individuals so acted upon should not attempt to smoke. A case such as just cited is, however, no criterion to go by for smokers at large. A peculiar belief fixed in the minds of most men and all women of the smoking contingent is that of all forms of tobacco the cigarette is by far the most injurious. This conviction is even held by the majority of those addicted to pipes and cigars. As a matter of fact, however, the cigarette is of the three the least harmful. Why? Simply for the reason that the tobacco employed for cigarettes possesses are of the mildest forms known. The accretions of tobacco oil which accumulate in the bowl, base and stem, is accounted the most dangerous.

Smoking in Cuba.

In substance of what has just been said in regarding cigarettes I will quote from an eminent authority, Dr. Fernandus (Manual of Universal Medical Science, 1887, E. 17), the well known alienist, "Nicotina amblyopica, or impairment of vision, is almost unknown in Cuba, though smoking there is so excessive. This fact is accounted for by the means of two—no pipes and little chewing."

There is a very positive statement made in "The Woman Who Smokes," which avers that "innumerable instances could be cited of insanity which could be directly traced to nicotine poisoning." Dr. Farrington, M. D., the well known alienist, in his book, "Psychiatry," advances a different statement. It is worded thus:—"Although it is frequently stated in text books that excessive use of tobacco may give rise to marked mental disturbances,

it is extremely doubtful whether the drug is ever the sole cause of a definite protracted mental aberration. . . .

Another fact advanced by doctors who have made a special study of the subject is that any individual who so far falls under the seductive spell of, say, the cigarette habit as to earn the epithet of "fiend" is organically rather weak minded. In the absence of tobacco he would turn to some habit much more dangerous—morphine or cocaine, for instance.

The writer of "The Woman Who Smokes" seems very solicitous that women be saved from the dangers of the cigarette. Why does she not put her fertile pen to paper and point out the much more imminent menace of tea? Being a household commodity, tea is drunk by nearly every woman in the country. The disastrous effects consequent on its use are most pronounced among the working classes. The large majority of factory and shop girls consume enormous quantities of it. In the morning they start off to work after having had nothing more nutritious than a breakfast consisting of bread or crackers and tea. After working hard for three or four hours they adjourn for a hunchback of crackers or bread, and on occasions possibly even a piece of indigestible cake, and the inevitable tea.

Poisons Apparent.

At night they vary the monotony of the menu by giving the tea the precedences and putting the crackers and bread second. There are to-day in New York city and the outlying districts thousands of thousands of women so employed who do not make the acquaintance of meat on an average of more than once a week. And the average domestic—if I can credit what numerous friends tell me—there appears to be no limit to the amount she drinks, and the pot is kept a-boiling during all her working hours. And yet, of all these, how many realize that they are poisoning themselves; slowly may be, but none the less surely. As shown by analysis tea contains 25 per cent of a poisonous alkaloid

and 10 per cent of tannic acid. The digestive and nervous systems suffer most. Tea drinking when indulged in excessively induces acid dyspepsia, with the attendant miseries of heartburn, nausea, faintness, abdominal pains, insomnia and mental depression. In the aggregate, therefore, tea shows up as being far more deleterious to the human system than any amount of alkaloids absorbed by smokers.

Apropos, let us return to the ethical and moral aspects of the tobacco problem. The author of "The Woman Who Smokes" appears to have been misled by the British railway authorities who have seen fit to add to their system "cars and compartments conspicuously labelled 'Ladies' Smoking Cars.'" This is also further outraged because "cars so advertised should be sought by the majority of lady travellers." To conclude, she denounces women who smoke as being un ladylike and slaves of a most pernicious vice.

Aside from the physical argument in favor of leaving all such habits alone, I cannot for my part see the slightest ethical mandate laid down as it is by society and custom that should hold women back from doing what she likes in such respects.

The woman of to-day are just beginning to struggle out of that "Blough of Despond"—custom. The mire of custom has adhered to her feet and balked and retarded her steps for hundreds of years past.

Let us cite a few parallels. Take this, for instance—Only a couple of generations ago no man could work for a living and consequently not fit for gentility to associate with. In this age, however, if a man does not work or possess some tangible occupation he, far from being considered a gentleman, is termed what is commonly called a loafer. We have

stretched a point since then. It is now even possible for a woman (I denote the woman) to earn a living and yet be considered respectable and a lady.

Very new fad that has come in for many years past, has been attended by this sort of criticism. Those who seek to march in the van must expect invariably to draw the enemy's fire.

Eliminating the "Lady"—the "woman" who indulges in a few cigarettes a day in her own home or in her immediate circle loses nothing of her femininity. It denotes a rather I should say in domestic life, particularly where it is often the cause of the hatched being buried.

Therefore, let the woman who smokes have her way; it won't hurt you, and it won't hurt her either if she is careful. The adoption of this advice by people at large will not be a manifestation of moral depravity, but rather the early dawn of liberal sense and thought.

In Feminine Politics.

WARD Heeler—Excuse me, miss; but I thought I'd drop in on you for a minute and ask how you was going to vote!

Maiden Lady—Really, I haven't made up my mind yet.

Heeler—You bet, miss. I wish you'd take our man under consideration. He's a good lawyer that has been in politics for ten years and has stood by his party against foes without and foes within.

M. L.—How lovely of him!

Heeler—Yes, miss, and he's straight as a string.

M. L.—Charming! Is he married?

Heeler—You bet he is. He knows that the first duty of the patriot and good citizen is to get married, and he's got a wife and six children.

M. L.—Um—er—er—who's the other candidate?

From McClure's Magazine, July, 1906, descriptive of Dr. Cahill's musical invention.

"I am sure I never could imagine how those among you who depend on all the things I have managed to endure the old-fashioned system for providing it." . . .

"I have simply carried the idea of operation into our musical service also. . . .

"We have simply carried the idea of operation into our musical service also. . . .