

The HOME that



There's no stale tobacco smoke in the electric home—it is sucked down an air vent back of the bookcase. Below, cool air emerges from the vent in the china cabinet. When the doors are closed the air passes to a bedroom above.

PART II

ONCE, we looked upon electricity as a mysterious and destructive force. Today we regard it as a laborer whose tireless energy has been harnessed by industry to do work which otherwise would require the muscle power of hundreds of thousands of men.

And electricity now is preparing to assume an even more important role in our daily lives. More and more, we are viewing it as an indispensable household servant, a Handy Annie capable of doing most of the home tasks which have occupied millions of housewives for thousands of years.

Up in Schenectady, N. Y., Charles M. Ripley has demonstrated that this Handy Annie is a good housekeeper. All he did was to supply her with the necessary tools—modern electrical appliances—and turn over the work to Annie. The result is a home that virtually runs itself, quietly,

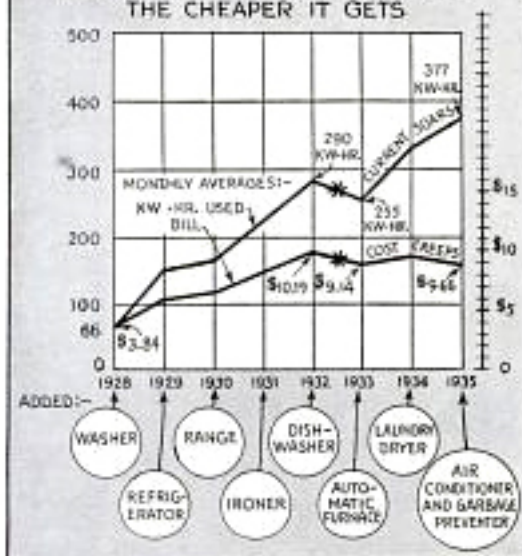


Runs Itself

efficiently, effortlessly. An electric oil furnace keeps the house at an even temperature, an electric range turns itself off when food is cooked, an electric refrigerator makes ice without attention, an air conditioner, a room cooler, a dishwasher, a washing machine, an ironer, a dryer, a garbage preventer and a score of other tools used by Annie operate with a minimum of supervision. To transform his house into an all-electric home, Mr. Ripley in a period of about nine years has acquired electrical household equipment



THE MORE ELECTRICITY YOU USE
THE CHEAPER IT GETS



Photos Courtesy General Electric Co.

Chart showing how cost per kilowatt-hour goes down as consumption goes up. Top, light under lily pad which illuminates fish pool so it can be enjoyed after dark.

which is valued at more than \$2,000.

"Ah, ha!" you exclaim, "I knew there was a joker somewhere. So you need \$2,000 worth of machinery to do all this?"

Well, the joker isn't where you think it is. It's true that Annie, the electrical maid, can't work without tools and it's also true

that she uses equipment in Mr. Ripley's home which he estimates is worth more than \$2,000. But here's the joker. Mr. Ripley says this \$2,000 worth of equipment didn't cost him a cent and he supplies figures to prove it! Let's allow him to do his own arithmetic.

"It's like this," says Mr. Ripley. "A washwoman used to come to our house every Monday. We paid her three dollars, lunch and carfare—\$15 a month. We didn't need the laundress after we bought the electric washer—terms, \$10 down and \$14 a month. In less than a year we owned a \$165 washer, paid for with money which otherwise would have gone to the washwoman. The 'juice' to run it cost \$1.25 a year, also paid out of the laundress' wages we saved.

"Well, once we owned the washer, that \$15 a month we had been paying the laundress began burning a hole in my pocket. So we bought a refrigerator for \$250—terms, \$10 down and \$20 a month. We paid for that with the \$15 a month saved on our washing plus about \$6.50 a month saved on ice and food formerly spoiled. The refrigerator made the electric bill go up \$1.25 a month. This too, was paid out of savings.

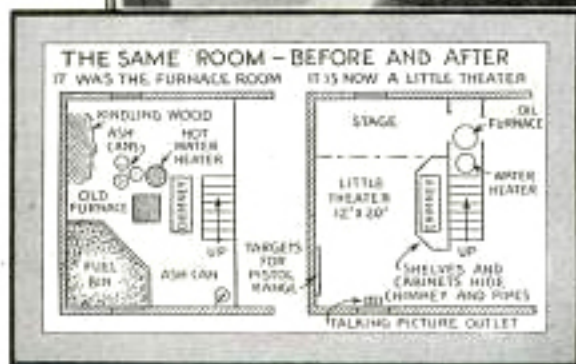


"By the end of the second year, we owned both a washer and a refrigerator, paid for out of what we had been paying the washwoman and for ice and spoiled food. Our plan certainly was working. We decided to keep on going, using the money saved by the present appliances to buy the next. The third year we bought a \$250 electric range. Our old stove was turned in for the down-payment. All the other payments of \$20 a month each could have been made with the money saved by the refrigerator and washer. But in addition, we saved the gas bill for cooking and we found we saved on our meat bills. The electric bill for the range averaged \$2.28 a month.

"At the end of the third year we had a \$250 range, a \$250 refrigerator and a \$165 washer, all paid for by savings these machines effected for us. We bought everything else the same way, using the money saved by all the previous appliances to buy the next one, and never buying the next one until the last one was paid for. Of course, we were enjoying better food and many comforts, conveniences and services

which we couldn't measure in dollars, but there was another angle too.

"For every bright, shiny, new appliance that came into our home, half a dozen old-fashioned, unhandy and often unsanitary things went out. Consider for a moment what we got rid of. Our cellar used to be shunned. It was cluttered up with coal, ash cans, kindling, papers, poker, shovels and a big coal bin which took up one end.



Top, getting a morning workout in the electrified home. Center, sun lamp mounted over bath tub. Bottom, the basement of the electric home before electrification and afterward

The electric oil furnace got rid of all of them and the cellar is now a basement converted into a recreation room. We got rid of dish washing and drying, sooty pots and pans, scrub boards, dishpans, garbage cans, rug beaters—we even got rid of matches.

"Now let's recapitulate. The entire elimination of some expenses and the reduction of others under the old system, saved enough cash to buy all the modern appliances we use today. Here are the figures. Before we had the automatic furnace we used two fuels—coal and gas—which cost \$14.13 per month. The new furnace uses one fuel—oil—which costs \$9.29 per month, or a saving of \$4.84 per month. The washer saved \$15 a month paid out for a laundress. The refrigerator saved \$6.50 previously paid for ice and lost in spoiled food. That's a decrease of \$26.34 a month."

"But," you shout triumphantly at this point, "what about your light bill? If you're running the whole house with electricity, someone has to pay for all the extra 'juice.' How about the light bill?"

"Ah, yes," replies the man whose home runs itself, "the light bill. I had almost forgotten that. Well, when we began our program of electrification our light bill averaged \$3.84 per month. Now that we have finished, we find that we are using six times as much electricity as we used to. But we don't pay six times as big a light bill. We pay about two and one-half times as much as we did when we started. Our average bill now is \$9.66. Deduct the difference, \$5.82, from the \$26.34 we saved by electrification, and you have a net decrease per month of \$20.52. That's \$246.24 a year—almost five per cent interest on \$5,000. I'm glad you mentioned that light bill."

When you buy electricity, you buy work. You can't see the current that does your work but it can be measured far more accurately

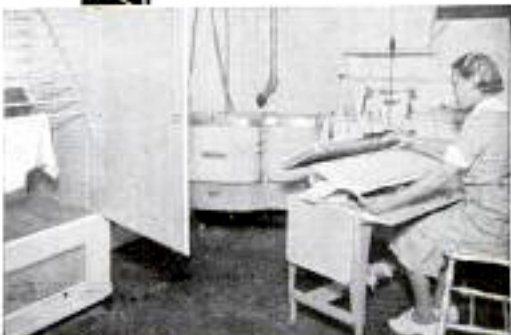
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Mr. Ripley pointing out the bug killer on his porch. At left is a colored light which illuminates the porch when there is a party



Putting on a trick lighting entertainment in the basement of the Ripley home. Kindling and ash cans used to occupy the space where this little theater is



Wash day in the electric home. The electric ironer is in the foreground, the electric washing machine in the background and the electric clothes dryer at the left

The Home that Runs Itself

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than gasoline or oats or lumber. The unit of measure is the kilowatt-hour and a kilowatt-hour will do more mechanical work than thirteen men can do in one hour.

Electrical rates generally are established on a sliding scale, so that the more "juice" you use, the cheaper it becomes. And that is the secret of Mr. Ripley's \$9.66 bill per month for about 400 kilowatt-hours of work as compared with a bill of \$3.84 he used to pay for an average of sixty-six kilowatt-hours. As he made fuller use of the Handy Annie he was employing in his home, he began buying electricity in wholesale quantities at bargain prices. He explains it like this:

"You don't get all the economies until you are all-electric, but the more electric equipment you use in your home, the lower the average rate per kilowatt-hour. So just remember that costs don't increase equally with consumption. Power is cheaper than light, and power—or work—is what I am buying.

"Here's the way my electric bill begins to creep instead of race as I increase consumption in a typical city like Schenectady. The first dollar of my bill buys seventeen kilowatt-hours, enough to run a washer with the strength of four women, a vacuum cleaner, a radio, a hand iron, clock and toaster.

"My second dollar buys twenty-two kilowatt-hours and that's enough to light the house fairly well. My third dollar buys twenty-five kilowatt-hours, enough to run a coffee-maker, waffle iron, cooker, grill, hot plate, fan, another clock and some more and better lighting.

"And right here is where most people stop—just at the point when they are ready to get a big bargain. The average electric bill for 21,000,000 American homes is about three dollars a month. Few know what happens after the third dollar. Well, in Schenectady the fourth dollar buys not seventeen, but thirty-five kilowatt-hours—more than twice as much as I got for the first dollar. And this is enough to run a good refrigerator, chafing dish, another fan, a vacuum cleaner upstairs, four more clocks and still more and better lights.

"The fifth dollar buys thirty-six kilowatt-hours and the sixth buys thirty-six

more. And that's about enough, in our small family, to run the electric range and a kitchen ventilating fan, particularly as we do much cooking right on the dining-room table. The seventh dollar buys forty-three kilowatt-hours, two and one-half times what the first dollar bought, enough 'juice' to run an automatic oil or gas furnace that also heats our water.

"And now take notice. My eighth dollar buys sixty-six kilowatt-hours, almost four times as much work as my first dollar bought. That would be enough to run four washers, four vacuum cleaners, four irons, four clocks, four radios and four toasters. But to be practical, I added an ironing machine, another radio and a dishwasher in the kitchen, a clock in every room, a vacuum cleaner for each floor, more fans and more lamps.

"You are now really beginning to live electrically. You have an electric kitchen and an electric laundry. After this you will look into air conditioning and will investigate a room cooler. You will light your garden. You will begin to burn small lights all night and put 100-watt bulbs in modern efficient lights to save your eyes.

"And all of a sudden, you'll discover that you actually are using electricity like water—even more freely than water, perhaps, because while you don't let water run all night, you are using electricity twenty-four hours a day. Handy Annie is working while you sleep. And when you begin living electrically, you'll really find that you are living better at less cost because you're buying electric power—work—at bargain rates and using the money formerly spent in doing things the old-fashioned way to provide the tools for your Annie to do things the modern way.

"Based on my average rate of two and one-half cents, I can buy the mechanical work that an average farm hand would do in a month for about fifty cents.

"And, once you're completely electrified, you'll find your home actually does run itself. I know, because we went on a Caribbean cruise one winter and left our home to its own devices for eighteen days. We returned to find the automatic furnace still holding the temperature at sixty and the food in the refrigerator as fresh as when we departed. If that home didn't run itself, who ran it?"

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And that's about all, except that this Handy Annie which runs Mr. Ripley's home so efficiently is employed on a part-time basis in more than 21,250,000 other homes. In 1935 the average housewife paid her sixty-six cents a week wages, but in that year she did forty-three per cent more work in American homes than in 1929 and twice as much as ten years ago, but got only fifty per cent more pay.

Imagine, if you can, the work Annie may be called upon to do some day when all these millions of homes begin using electricity as freely as water. That day, says Mr. Ripley, is near. It will arrive when others begin to find out what he has already proved—that electricity can run a home efficiently, easily and economically, and do a better job than the most capable of human hands.

"The part Annie will play in our homes in the future staggers the imagination," says the proud owner of the first all-electric home. "I believe that long before 1950 her work in homes will equal in usefulness—kilowatt-hours—all the work now done by electricity in all our mills, mines and factories."

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Research Brings Better Goods at Lower Cost

1891 TODAY  \$3.50 100 candlepower used 310 watts 20¢ 100 candlepower uses 100 watts	1922 TODAY  \$200 Nearby stations only. Needed batteries. \$30 Long distance reception. Just plug in.	1902 TODAY  3 lb coal per kw-hr 22 kw per sq ft of floor area 1 lb coal per kw-hr 76 kw per sq ft of floor area
1927 TODAY  \$205 Slow No shift cooker \$107 Fast Thick cooker included	1891 TODAY  1 1/3 hp \$90 28 lb 1 1/3 hp \$12 28 lb	1926 TODAY  6-foot box \$295 50 kw-hr per month 6-foot box \$165 21 kw-hr per month

Here is a graphic story of the rapid advance of engineering in recent years, showing side by side the superior products of today and the less efficient ones which cost far more a few years ago

Thanks to inventive research engineers, many of the products of industry today deliver far superior performance at a fraction of their cost a few years back. Your hundred-candlepower lamp in 1891 cost \$3.50 and used 310 watts; today such a lamp can be had for twenty cents and uses 100 watts. A slow-cooking electric stove only ten years ago cost \$205, while today a fast and efficient model lists for \$107. As late as 1921 an electric bulb that sells for fifteen cents now, cost forty-five cents and today's gives eighty per cent more light! Thomas A. Edison's first generating station in 1882 required ten pounds of coal to generate one kilowatt-hour of electricity.

In 1902 it took three pounds of coal. The latest turbine-generator matches every pound of coal with one kilowatt-hour. You paid eighty dollars for a one-third horsepower electric motor in 1891 and you could buy one today for twelve dollars. In ten years the price of a six-foot electric refrigerator has been slashed from \$295 to \$165, and the new one consumes only twenty-one kilowatt-hours per month compared with fifty kilowatt-hours used by the old model. Back in 1922 you bought a \$200 battery-operated radio set that could pick up only near-by stations. Today a thirty dollar set gets distant stations, and you merely plug it into a socket.