

Lesson Nine

I, Pencil

LESSON IDEA

The free enterprise system works in seemingly miraculous ways, to automatically coordinate the millions of different activities that produce goods and services for us. Consider, for example, what is involved in making something as "simple" as a lead pencil.

VISUAL AID

Enough standard wooden "lead" (actually graphite) pencils, with erasers, to give one to each family member.

DO YOU RECALL the story of "Aladdin and the Wonderful Lamp"? It relates the saga of a young boy who found a magical lamp containing a genie with the power to grant the wishes of whomever rubbed the lamp.

This story from *Tales From The Arabian Nights* is mythical, but there is a *real* equivalent of an Aladdin's Lamp available to us today. It is capable of supplying in abundance virtually any material objects we may desire. Called the free enterprise system, it is capable of coordinating human energy with natural resources in a way that helped lift the United States to the highest standard of living of any country in history

It may seem an exaggeration to imply that the free enterprise system works in a magical way, so let's take a look at how it produced this seemingly simple device. [Hand each family member a wooden lead pencil.]

Do you believe someone, without help, could make a pencil? [Give everyone an opportunity to express an opinion.] It looks easy at first, doesn't it? Especially when compared to what it would take to make something more complex, such as a computer or jet airliner. But before we jump to any conclusions, let's find out what it takes to make an ordinary wooden pencil. If the pencil could talk, here's the fascinating story it could tell:

I AM A lead pencil — the ordinary wooden pencil familiar to all boys and girls and adults who can read and write. Writing is both my vocation and my avocation; it is all I do.

You may wonder why I should tell you about myself. Well, to begin with, my story is interesting. And, next, I am a mystery — more so than a tree or a sunset or even a flash of lightning. But, sadly, I am taken for granted by those who use me.

Simple though I appear to be, I merit your wonder and awe, a claim I shall attempt to prove. In fact, if you can understand me, if you can become aware of the miraculousness which I symbolize, you can help save the freedom mankind is so unhappily losing. I have a profound lesson to teach. And I can teach this lesson better than can an automobile or an airplane or a mechanical dishwasher. Why? Well, because I am seemingly so simple.

Simple? Yet, not a single person on the face of this earth knows how to make me. This sounds fantastic, doesn't it? Especially when you realize that about one and one-half billion of my brothers and sisters are produced in the U.S.A. each year.

Pick me up and look me over. What do you see? Not much meets the eye — there's some wood, lacquer, the printed labeling, graphite lead, a bit of metal, and an eraser.

Just as you cannot trace your family tree back very far, so is it impossible for me to name and explain all my antecedents. But I would like to suggest enough of them to impress upon you the richness and complexity of my background.

My family tree begins with what in fact is a tree, a cedar of straight grain that grows in Northern California and Oregon. Now think about all the saws and trucks and rope and the countless other gear used in harvesting and carting the cedar logs to the railroad siding. Think of all the persons and the numberless skills that went into their fabrication: the mining of ore, the making of steel and its refinement into saws, axes, motors;

the growing of hemp and bringing it through all the stages to heavy and strong rope; the logging camps with their beds and mess halls, the raising and cooking of all the food. Why, untold thousands of persons helped supply every cup of coffee the loggers drink!

The logs are shipped to a mill in California. Imagine the individuals who make flat cars and rails and railroad engines and who construct and install all the communication systems these require. They are essential to my production, even though they do not realize it themselves.

Now consider the millwork in California. The cedar logs are cut into small, pencil-length slats less than one-fourth of an inch thick. These are kiln-dried and then they are tinted. Our wood is colored for the same reason women use cosmetics; people prefer that I look pretty, not a pallid white. The slats are waxed and kiln-dried again. How many skills went into the making of the tint and the kilns, into supplying the heat, the light and power, the belts, motors, and all the other things a mill requires? Even the sweepers in the mill help produce me. Yes, and included are the men who poured the concrete for the dam of an electric company hydroplant which supplies the mill's power!

And don't overlook the ancestors present and

distant who have a hand in transporting sixty carloads of pencil slats across the nation from California to Wilkes-Barre, Pennsylvania.

Once in the pencil factory — four million dollars worth of machinery and building, all capital accumulated by thrifty and saving parents of mine — each slat is given eight grooves by a complex machine, after which another machine lays leads in every other slat, applies glue, and places another slat atop — a lead sandwich, so to speak. Seven brothers and I are mechanically carved from this wood-clinched "sandwich."

NOW LET'S TALK about my "lead." Did you know that we pencils contain no lead at all? Basically, we write with graphite, mined in Ceylon. Consider these miners and those who make their many tools and the makers of the paper sacks in which the graphite is shipped and those who make the string that ties the sacks and those who put them aboard ships and those who make the ships. Even the lighthouse keepers and the harbor pilots along the way assisted in my "birth."

The graphite is mixed with clay from Mississippi in which ammonium hydroxide is used in the refining process. Then wetting agents are added and after passing through numerous machines, the mixture finally appears like sausage from a grinder and is cut to size, dried, and baked for several hours at 1,850 degrees Fahrenheit.

My cedar receives six coats of lacquer. Do you know all of the ingredients of lacquer? Who would think that the growers of castor beans and the refiners of castor oil are a part of it? They are. Why, even the process by which the lacquer is made a beautiful yellow involves the skills of more persons than we can list!

The bit of metal at my top — the ferrule — is brass. Think of all the persons who mine zinc and copper and those who have the skills to make shiny sheet brass from these products of nature.

Then there's my crowning glory, inelegantly referred to in the trade as "the plug," the part man uses to erase the errors he makes with me. An ingredient called "factice" is what does the erasing. It is a rubber-like product made from seed oil from Indonesia, pumice from Italy, plus sulfur chloride and calcium sulfide. Rubber, contrary to

FOR YOUNGER AMERICANS

The main point of tonight's lesson is that no economic system has ever equalled free enterprise in combining thousands of different activities, and the labor of millions of different workers, to produce goods and services.

Have younger children stretch their imaginations by tracing the "ancestry" of other items in your home. It will reinforce the message of tonight's lesson. For instance, steps involved:

1. To bring a banana from South America to your breakfast table.
2. To make a bicycle.
3. To assemble the many components of a typical computer system (computer, screen, keyboard, modem, CD-ROM, etc.).

To conclude the lesson, thumb through a newspaper or mail-order catalog as a reminder of the variety of available goods. And emphasize the point that the marvelous free enterprise system of production and distribution works best in an atmosphere of freedom, not government regimentation.

the common notion, is used only for binding purposes.

Now, do any of you wish to challenge my earlier assertion that no single person on the face of this earth knows how to make me? Actually, millions of human beings have had a hand in my creation. But no one of them knows more than a very few of the others who assisted in my creation. There isn't a single person in all these millions, including the president of the pencil company, who contributes more than a tiny, infinitesimal bit of know-how. When you look at it from my point of view, the only difference between the miner of graphite in Sri Lanka and the logger in Oregon is in the type of know-how. Neither the miner nor the logger can be dispensed with, any more than can the chemist at the factory.

Here is an astounding fact: Neither the worker in the oil field nor the chemist nor the digger of graphite or clay, nor anyone who mans or makes the ships or trains or trucks, nor the one who runs the machine that does the knurling on my bit of metal, nor the president of the pencil company, performs his task because he wants me. Each one wants me less, perhaps, than does a child in the first grade. Indeed, there are some among this vast multitude who never saw a pencil and would

not know how to use one if they did. But each of these millions sees that he can thus exchange his tiny bit of know-how or work for the goods and services he needs or wants. Most of them never give me a thought, while they help in my production.

There is a fact still more astounding: The absence of a master mind, of anyone dictating or ordering these countless actions which bring me into being. In fact, no one directs more than a tiny fraction of the thousands of steps that lead to my production.

It has been said that "only God can make a tree." Why do we agree with this? Isn't it because we realize that we ourselves could not make one? Indeed, can we even describe a tree? We cannot, except in the most superficial terms. Who could ever record, let alone direct, the constant changes in branches and leaves, in roots and cells, that transpire in the life span of a tree? Such a feat is unthinkable!

I, Pencil, am a complex combination of miracles: a tree, zinc, copper, graphite, and so on. But to these miracles which manifest themselves in Nature, an even more extraordinary miracle has been added: the coordination of creative human energy. There are millions of tiny know-hows working together naturally and spontaneously, in response to human necessity and desire, and in the absence of any human master-minding! Not only is there no person or group organizing and directing all of these thousands of tasks and millions of workers, the plain and simple truth is there never could be. The task is simply too gigantic for man to do it. He can no more direct all of these millions of know-hows, to bring me into existence, than he can put molecules together to create a tree.

Now do you begin to understand why I said earlier, "If you can begin to realize the miraculousness which I symbolize, you can help save the freedom that mankind is so unhappily losing"? Once you are aware that all of these skills and all of this energy will naturally and even automatically work together to produce what we want and need, without any governmental or other coercive masterminding, you possess an absolutely essential ingredient for freedom: a faith in free men. Freedom is impossible without the faith that it will work.

FOR SERIOUS STUDENTS

Stories similar to "I, Pencil" could be written about any number of things that we use or see every day. All around us, evidence abounds that free men, working together voluntarily and in response to the desires of consumers, will produce and deliver the goods and services we want.

One example is the American supermarket. Consider the thousands of different items available there. Where have they come from? How many different regions and even different countries helped yield the herbs and spices, the meats and pastries, and soups and nuts and napkins? And all of the cans, boxes, jars, and bags to hold them?

Then consider this added fact: If customers decide for any reason to stop buying one product and purchase more of another, the free enterprise system will begin immediately and automatically to compensate. How does it do this? Is there any way that some government bureau, even with the most advanced computers, could possibly plan all steps and allocate all resources to achieve the same results? What would happen if one tried?

But here is what sometimes happens to this faith. Once government acquires a monopoly of some activity, such as the delivery of the mails, most individuals will believe that the mails could not be efficiently delivered by men acting freely. The reason is that each one realizes that he himself doesn't know how to do all the things that mail delivery requires. He also believes that no other individual or even a group could possibly do it. And do you know something? These assumptions are absolutely correct! No individual possesses enough know-how to perform a nation's mail delivery any more than any individual possesses enough know-how to make a pencil. Now, in the absence of a faith in free men — in the unawareness that millions of tiny know-hows would naturally and miraculously form and cooperate to satisfy this necessity — the individual cannot help but reach the erroneous conclusion that mail can be delivered only by governmental "master-minding."

If I, Pencil, were the only item that could offer testimony on what men can accomplish when free to try, then those with little faith would have a fair case. However, there is testimony galore; it's all about us and on every hand. Mail delivery is exceedingly simple when compared, for instance, to the making of an automobile or a calculator or a television set or computer or tens of thousands of other things. What about delivery? Why, in this area where men have been left free to try, they can deliver the human voice around the world in less than one second; they can deliver the sight and sound of men walking on the moon to our living rooms, while it is happening; they can deliver 300 airline passengers from Seattle to Baltimore in less than four hours; they can deliver gas from Texas to an oven in New York at unbelievably low rates and without subsidy; they can deliver four pounds of oil from the Persian Gulf to our eastern seaboard — halfway around the world — for less money than the government charges for delivering a letter across the street!

Well, now you have heard my history. The lesson I wanted to teach was that you will enjoy the greatest production, reap the most benefits, and accomplish the most innovation, coordination, and cooperation when you remember one very important point: let people operate in freedom. Do not try to control or direct a thousand-and-one differ-

ent efforts and activities. Permit creative energy and know-how to flow as freely as possible, and have faith that free men will respond.

I, Pencil, as simple as I appear to be, offer the miracle of my own existence as testimony that such faith is practical, and will produce wonders for you to enjoy.

Concluding Thought

The free enterprise system operates in our economy in much the same way that gravity influences water flowing in a river. If man-made and other artificial barriers are kept out of the way, the water flows naturally to the sea. Similarly, if man-made barriers are kept out of our economy, the goods and services we need and desire flow to us smoothly and abundantly.

Looking Ahead

In our next lesson, we shall continue our discussion of the free enterprise system, with special emphasis on how its record compares with government-controlled economic systems.

The story "I, Pencil" is adapted from the classic essay by Leonard E. Read, president of the Foundation for Economic Education, Irvington-On-Hudson, New York. It first appeared in the Foundation's monthly publication *The Freeman* for December 1958.