

Teaching American History 2010-2011

Lesson Title: "A Visual History: Industry, Society, and Social Mobility in *Hartford*"

From Caitlin Masopust

Grade: 11th or 12th

Prerequisites: Knowledge of manufacturing in America in the mid 19th Century and early 20th Century, specifically Fordism and the evolution of standardization in production.

Length of Class Period: 94 minutes

Inquiry: In what ways did the products and marketing tactics of the Pope Manufacturing Company reflect the link between industry and social mobility in Hartford in the late nineteenth and early twentieth century?

Key Concepts: Historical Significance, Historical Inquiry, Primary Source Analysis, Innovation, Ingenuity, Social Mobility, Historical Understanding

Key Terms: Manufacturing, employment, industry, Fordism, Popeism, standardization, interchangeable parts, mass production,

Lesson Objectives:

Students will **understand** that:

- There was a direct link between manufacturing and social mobility in the city of Hartford.
- Manufacturing had an important role in social, cultural, and economic developments in New England in the late nineteenth century.
- Manufacturing linked Connecticut, specifically the capitol city, to the global community through trade, research, and development.

Students will **know**:

- The skills of historical inquiry: determining what an artifact is, why it was made, who the intended audience of the artifact was, and why the artifact is significant to our historical understanding.
- The evolution of the manufacturing process, from the American System to Mass Production.

Students will **be able** to:

- Analyze a photograph for historical importance.
- Articulate how various types of artifacts can enhance our historical understanding.

Materials: (attached)

- PowerPoint presentation

- PowerPoint student outline (handout)
- 8 Color, glossy photographs.
- 5 copies of Mark Twain’s “Taming the Bicycle”
- 2 copies of Pierce’s “The Fastest Men”

Activities:

Whole Class Instruction

1. **Introduction:** Warm-up: What does “manufacturing” mean? What did Hartford manufacture in the past? What impact does manufacturing have on a city?
 - Individually, silently, 6 minutes. Discussion will occur at end of class.

Group Work

2. **Divide** students into 5 groups (4 students per group). Groups will rotate between 5 stations containing different artifacts. Artifacts will remain at each station while the students transition between stations. 4 minutes.
3. **Activity:** Artifact Analysis 1-10. In their assigned groups, students will analyze their artifact(s) and record observations on PowerPoint Student Outline handout. 10 minutes per station. Teacher will announce time to transition. 50 minutes total.

Whole Class Discussion

4. **Discuss:** Artifact Analysis 1-10. 18-20 minutes.
5. **Conclusion:** Answer the warm-up questions. Establish the link between manufacturing, society, and social mobility in the city of Hartford. 14-16 minutes.

Assessment:

Pre-Assessment

- *Warm-up:* What does “manufacturing” mean? What might “manufacturing” have looked like in Hartford in the past? What does “manufacturing” look like in Hartford today?

Individually, silently, 6 minutes.

At the end of the lesson, students will be asked to revise their answers to the warm-up question: What does “manufacturing” mean? What might “manufacturing” have looked like in Hartford in the past? What does “manufacturing” look like in Hartford today? Student responses will reveal the depth of their understanding of the link between industry and social mobility in Hartford in the late nineteenth and early twentieth century.

Connecticut Grade Level Expectations:

1.12 Explain the changing nature of the U.S. economy (e.g., agrarian, manufacturing, service, rise of unions, “green movement”).

1.2 Describe the importance of significant events in local and Connecticut history and their connections to United States history.

1.213 Analyze how events and people in Connecticut reflect and have contributed to developments in United States history (e.g. Samuel Colt).

1.427 Explain how technological developments have changed our perception and understanding of location and space in the modern world (e.g. transportation).

2.1 Access and gather information from a variety of primary and secondary sources including electronic media (maps, charts, graphs, images, artifacts, recordings and text).

2.11 Find relevant and accurate information from a variety of sources to answer a history/social studies question.

2.23 Cite evidence from a source to determine an author’s purpose and intended audience.

2.411 Ask relevant questions related to social studies/history to initiate, extend, or debate a point of view.

3.11 Use evidence to develop an interpretation of a historical event.

3.12 Evaluate primary and secondary interpretations of a historical event.

Resources:

Photographs: (all photographs can be found in the attached PowerPoint as well as the PDF)

“A.D. Clinton Family.” Connecticut History Online: *Connecticut Historical Society*. Accession number X.2000.1.168.

“Albert A. Pope.” Connecticut History Online: *Connecticut Historical Society*. Accession number: 1986.80.4.

“Chief John C. Moran.” Connecticut History Online: *Connecticut Historical Society*. Accession number 1982.80.305A.

“City of Hartford, Connecticut, 1877. Connecticut History Online: *Connecticut Historical Society*. Accession number X.1986.143.0.

“Columbia Bicycles.” Connecticut History Online: *Connecticut Historical Society*. chs_cd8_bdse_m_1896p825co.jpg.

“Columbia Bicycle Model 100.” Connecticut History Online: *Connecticut Historical Society*. Accession number X.1953.2.5.

“Crowd of Employees Outside the Pope Manufacturing Company, Capitol Avenue, Hartford.” Connecticut History Online: *Connecticut Historical Society*. Accession number X.1995.10.0.

“Factories of the Pope Manufacturing Co., Hartford. Connecticut History Online: *Connecticut Historical Society*. Accession number 1988.137.12.

“Fannie B. Wildman with the Latest Bicycle, Danbury.” Connecticut History Online: *Connecticut Historical Society*. Accession number 1972.2.4.12.

“Hartford French Laundry.” Connecticut History Online: *Connecticut Historical Society*. Accession number 1986.142.5.

“Hartford Police on Motorcycles, Kinsley Street, Hartford.” Connecticut History Online: *Connecticut Historical Society*. Accession number 1982.80.465.

“Hartford Wheel Club Racing Team, Hartford.” Connecticut History Online: *Connecticut Historical Society*. Accession number 1982.80.304.

“Milan R. Cook on a Bicycle, Colt Park, Hartford.” Connecticut History Online: *Connecticut Historical Society*. Accession number: 1993.149.10.

“Models for 1897 Ready.” Connecticut History Online: *Connecticut Historical Society*. Call number: BroadSides Small 1897 P826m.

“Samuel L. Clemens.” Connecticut History Online: *Connecticut Historical Society*. Accession number X.2000.22.123.

“Theodore Roosevelt in an Electric Carriage, Hartford.” Connecticut History Online: *Connecticut Historical Society*. Accession number 1982.80.398.

Text:

Twain, Mark. *Taming the Bicycle*. 1917.

Articles:

Epperson, Bruce. “Failed Colossus: Strategic Error at the Pope Manufacturing Company, 1878-1900.” *Technology and Culture*, Vol. 41, No. 2 (Apr., 2000), pp. 300-320.

Hounshell, David. A. “The Bicycle Industry in the 19th Century.” *From the American System to Mass Production 1800-1932 : the Development of Manufacturing Technology in the United States*. Baltimore: Johns Hopkins University Press, 1984.

Pierce, Bill. *The Fastest Men On Two Wheels*.

TAMING THE BICYCLE

By Mark Twain

In the early eighties Mark Twain learned to ride one of the old high-wheel bicycles of that period. He wrote an account of his experience, but did not offer it for publication. The form of bicycle he rode long ago became antiquated, but in the humor of his pleasantry is a quality which does not grow 5 old.

A. B. P.

I

I thought the matter over, and concluded I could do it. So I went down and bought a barrel of Pond's Extract and a bicycle. The Expert came home with me to instruct me. We chose the back yard, for the sake of privacy, and went to work. Mine was not a full-grown bicycle, but only a colt—a fifty-inch, with the pedals shortened up to forty-eight—and skittish, like any other colt. The Expert explained the thing's points briefly, then he got on its back and rode around a little, to show me how easy it was to do.

He said that the dismounting was perhaps the hardest thing to learn, and so we would leave that to the last. But he was in error there. He found, to his surprise and joy, that all that he needed to do was to get me on to the machine and stand out of the way; I could get off, myself.

Although I was wholly inexperienced, I dismounted in the best time on record. He was on that side, shoving up the machine; we all came down with a crash, he at the bottom, I next, and the machine on top. We examined the machine, but it was not in the least injured. This was hardly believable. Yet the Expert assured me that it was true; in fact, the examination proved it. I was partly to realize, then, how admirably these things are constructed. We applied some Pond's Extract, and resumed. The Expert got on the OTHER side to shove up this time, but I dismounted on that side; so the result was as before.

The machine was not hurt. We oiled ourselves again, and resumed. This time the Expert took up a sheltered position behind, but somehow or other we landed on him again. He was full of admiration; said it was abnormal. She was all right, not a scratch on her, not a timber started anywhere. I said it was wonderful, while we were greasing up, but he said that 30 when I came to know these steel spider-webs I would realize that nothing but dynamite could cripple them. Then he limped out to position, and we resumed once more. This time the Expert took up the position of short-stop, and got a man to shove up behind. We got up a handsome speed, and presently traversed a brick, and I went out over the top of the tiller

and landed, head down, on the instructor's back, and saw the machine fluttering in the air between me and the sun. It was well it came down on us, for that broke the fall, and it was not injured.

Five days later I got out and was carried down to the hospital, and found the Expert doing pretty fairly. In a few more days I was quite sound. I attribute this to my prudence in always dismounting on something soft. Some recommend a feather bed, but I think an Expert is better.

The Expert got out at last, brought four assistants with him. It was a good idea. These four held the graceful cobweb upright while I climbed into the saddle; then they formed in column and marched on either side of me while the Expert pushed behind; all hands assisted at the dismount.

The bicycle had what is called the "wabbles," and had them very badly. In order to keep my position, a good many things were required of me, and in every instance the thing required was against nature. That is to say, that whatever the needed thing might be, my nature, habit, and breeding moved me to attempt it in one way, while some immutable and unsuspected law of physics required that it be done in just the other way. I perceived by this how radically and grotesquely wrong had been the life-long education of my body and members. They were steeped in ignorance; they knew nothing—nothing which it could profit them to know. For instance, if I found myself falling to the right, I put the tiller hard down the other way, by a quite natural impulse, and so violated a law, and kept on going down. The law required the opposite thing—the big wheel must be turned in the direction in which you are falling. It is hard to believe this, when you are told it. And not merely hard to believe it, but impossible; it is opposed to all your notions. And it is just as hard to do it, after you do come to believe it.

Believing it, and knowing by the most convincing proof that it is true, does not help it: you can't any more DO it than you could before; you can neither force nor persuade yourself to do it at first. The intellect has to come to the front, now. It has to teach the limbs to discard their old education and adopt the new. The steps of one's progress are distinctly marked. At the end of each lesson he knows he has acquired something, and he also knows what that something is, and likewise that it will stay with him. It is not like studying German, where you mull along, in a groping, uncertain way, for thirty years; and at last, just as you think you've got it, they spring the subjunctive on you, and there you are. No—and I see now, plainly enough, that the great pity about the German language is, that you can't fall off it and hurt yourself. There is nothing like that feature to make you attend strictly to business. But I also see, by what I have learned of bicycling, that the right and only sure way to learn German is by the bicycling method. That is to say, take a grip on one villainy of it at a time, leaving that one half learned.

....

You get up and do it again; and once more; and then several times. By this time you have learned to keep your balance; and also to steer without wrenching the tiller out by the

roots (I say tiller because it IS a tiller; "handle-bar" is a lamely descriptive phrase). So you steer along, straight ahead, a little while, then you rise forward, with a steady strain, bringing your right leg, and then your body, into the saddle, catch your breath, fetch a violent hitch this way and then that, and down you go again.

But you have ceased to mind the going down by this time; you are getting to light on one foot or the other with considerable certainty. Six more attempts and six more falls make you perfect. You land in the saddle comfortably, next time, and stay there—that is, if you can be content to let your legs dangle, and leave the pedals alone a while; but if you grab at once for the pedals, you are gone again. You soon learn to wait a little and perfect your balance before reaching for the pedals; then the mounting-art is acquired, is complete, and a little practice will make it simple and easy to you, though spectators ought to keep off a rod or two to one side, along at first, if you have nothing against them.

.....

Within the next five days I achieved so much progress that the boy couldn't keep up with me. He had to go back to his gate-post, and content himself with watching me fall at long range. There was a row of low stepping-stones across one end of the street, a measured yard apart. Even after I got so I could steer pretty fairly I was so afraid of those stones that I always hit them. They gave me the worst falls I ever got in that street, except those which I got from dogs. I have seen it stated that no expert is quick enough to run over a dog; that a dog is always able to skip out of his way. I think that that may be true: but I think that the reason he couldn't run over the dog was because he was trying to. I did not try to run over any dog. But I an over every dog that came along. I think it makes a great deal of difference.

If you try to run over the dog he knows how to calculate, but if you are trying to miss him he does not know how to calculate, and is liable to jump the wrong way every time. It was always so in my experience. Even when I could not hit a wagon I could hit a dog that came to see me practice. They all liked to see me practice, and they all came, for there was very little going on in our neighborhood to entertain a dog. It took time to learn to miss a dog, but I achieved even that.

I can steer as well as I want to, now, and I will catch that boy one of these days and run over HIM if he doesn't reform.

Get a bicycle. You will not regret it, if you live.