

FARMING PROGRESS IN A CITY: McCORMICK'S REAPER

When people speak of economic development, often they mean the growth of manufacturing industries. That meaning is too limited, though. Now, for example, a main area of U.S. economic development is in the service industries. From colonial times through 1879, the development of the agricultural industry was of greater importance than the growth of factories that become so important in the 1870s. No city is self-sufficient. Every city depends on smaller agricultural communities for survival.

At first, the United States was a country primarily of farmers. And even as the cities grew, the farm communities grew, too. The farmer supplied food the city needed, cotton for the textile mills, and other raw materials for other city-based industries. As cities grew, their growing populations and industries needed more and more farm products. One way to meet this need would have been to get more farmers. But there is another solution, too. With improved capital—better equipment—each farmer worker could produce more. Cyrus McCormick introduced better farm equipment and changed the agriculture industry and the economy of the city of Chicago.

As you review the history of this one innovation, think of two other examples of inventions: the computer (which has changed the way people in many industries work) and chicken goggles (an invention to stop chickens from pecking each other's eyes, a product that has not been widely accepted in agriculture since its invention in 1903—"Farmers by the millions ignored them." [Small Inventions, National Geographic, 1984.]

When Cyrus McCormick showed his reaper to people, many thought it was a joke. The London Times called it "a cross between an Astley chariot, a wheelbarrow, and a flying machine." And in the mid-1800s, you can imagine how believable a flying machine was.

Yet by 1859, McCormick's firm had sold more than 50,000 reapers. Why did Cyrus McCormick's invention succeed? Look for answers as you read ideas related to the history of this project.

Idea 1: To succeed, an invention must work. That may sound very simple, but it is an idea that not every inventor has recognized.

Here are some reports Cyrus McCormick wrote about his project.

From the experiment in 1831 until the harvest of 1840, I did not sell a single reaper, except one, which I afterwards took back... Experience proved to me that it was best for the public, as well as myself, that no sales were made, as defects presented themselves which would have made the reaper unprofitable in other hands... I was not sufficiently satisfied of its being a 'useful' machine, to patent the reaper, until the year 1834, its construction and proportions having been imperfect, requiring much effort to make them, while light, yet simple, strong, and durable.

Case Study: American Economic Development

McCORMICK'S REAPER (continued)

Idea 2: An invention does not introduce itself; the entrepreneur must find ways to introduce it effectively.

Cyrus McCormick originated these new ways of selling:

- He gave a written guarantee with every machine
- He specified the price of the equipment although at the time the practice was to set the price given the bargaining conditions at the moment.

Idea 3: Inventions that save labor are valuable to producers, especially in times of scarce labor or high labor costs.

McCormick wrote that "...a great many farmers have certified that it will pay for itself in a single harvest, and I have no doubt that such is the fact estimating its saving of grain as well as labor." One report in 1859 said that the 50,000 reapers in use by then were "doing the work of 350,000 men, saving \$4,000,000 in wages..."

Idea 4: An innovation that is introduced in one city can affect people in places far beyond that city's limits—as well as the city's economy.

McCormick chose to come to Chicago instead of Cincinnati, St. Louis, Cleveland, or Milwaukee. All of those other cities were located in the grain-growing region that would hold most of his customers. Chicago already was a center for grain shipments, and putting the factory there added to Chicago's agricultural importance. McCormick's factory brought jobs directly and indirectly, as Chicago dock workers and railroad workers loaded more and more reapers for shipment to farms. Those reapers would change the farm industry throughout the Midwest and beyond.

Questions:

1. How and why did McCormick improve the reaper before he sold it?
2. If you were a farmer, why might you want to buy a McCormick reaper?
3. If you were a farm worker, how might you have viewed the reaper?
4. Why did McCormick's reaper succeed?
5. One historian wrote that "the United States owes much more to the reaper than it owes to the factory or the railroad or the Wall Street Stock Exchange. Without the magical grain machinery that gives us cheap bread, the whole new structure of our civilization, with all its dazzling luxuries and refinements, would be withered by the blight of Famine." [Herbert N. Casson, *The Romance of the Reaper*, 1908.]
 - A. Why might that historian have thought that the reaper was so important?
 - B. What other inventions have had such great impact on the economy? Consider the computer, the telephone, and others.
6. Remember the chicken goggles. Not every invention succeeds. How could the chicken goggle manufacturer have made them a success—or was that development impossible?