

The Influence of Inventions

W. D. Joss.

	Page
Introduction	3
Primitive Man - Little ingenuity: gradually improved	3
" " Mesozoic. Invention made	4
What nature provides us - air, water etc.	5
Instrument of the Ancients. Observance of stars	6
Moravian Compass. Its importance, value to navigators	7
Invention of gunpowder. cross bow. spear sling	8
Match lock, blunderbuss, wheel locking fire arms	8
Habits of Paris 15th century, of England 16th century	8
Printing. value. literature expensive	9
" as compared today. cheapness of literature	9
Mitchell's cotton gin. Its importance	9
Inventions of present century	10
Steam engine. its power and service	10
Improved method of travel on sea and land.	10
Construction of rail road. influence	11
Other inventions - telegraph, telephone etc.	11
Photography. its importance in evolution	12
Sewing machine, its effect.	12
Old method of farming. mode simple	12
What the farmer enjoys today	13
Conclusion	13 & 14

It shall be my purpose in writing this thesis to sum up briefly the services which inventions have rendered to the universe and the influence that the multiplicity of inventions have had upon the moral and social conditions of man.

However, I shall not be able to speak of all the great inventions, but will strive to point out some of the earliest and most useful inventions and how these by further improvements have wrought magnificent results.

No doubt all who are at all interested in the work of inventions will admit that civilization at its beginning must have been very rude and at the same time very simple.

The primitive man was little above the animal for he knew but very little about tools, instruments, and machinery. But as civilization advanced and man's faculties of mind and power became more and more developed, he learned gradually how to make and use other tools, contrivances, and the

like, which by improving the supplyer ones became more complex and of greater service to mankind.

How often do we stop to think how few things we now enjoy of the material comforts, conveniences and possessions that are not the result of invention. The attainment and progress which we have made over the savage barbarian, who must creep out from under his hut almost starved and hunt for his daily food, is a state of things which can only be attributed to the work of invention. But he, who must search for his living through long and weary hours with the club, the spear, or perhaps a bow and arrow, certainly has no time for mental development, and moral beauty is imperceptible to his undeveloped moral sense. Indeed very little mental and moral advancement can be made by those who must suffer daily from cold and hunger.

And so we can see quite readily that the earliest inventions were rude and simple ones, which furnished primitive man the weapons for the chase, and the tools that built his hut or his birch canoe.

Those inventions which gave us the great bulk of luxuries which we enjoy today came a very long time afterwards. So I think those things which go to make up the great category of objects which we possess, most have forgotten to credit to the work of invention and are liable to be come fascinated with the idea that these are the results only of modern times. This is a mistaken idea for records tell us differently. They have come slowly but surely from the simplest to the most complex forms. Every invention of any importance is the storehouse for all future inventions. In short one invention leads up to another.

Nature provides us with the air we breathe and the water we drink, but to convey the water to our mouths requires some contrivance to get it there, which in some form is an invention - whether it be by means of a tin cup or the shell of a coconut. True we may in some instances where water is most abundantly supplied get it without any contrivance, but little is drunken in this way.

Air is free and very abundant in nature, but if we wish to change its temperature or

have it go in a certain direction, then we must resort to some mechanical device that has been made for that purpose. For instance take the different devices of fans, ventilators and many others that might be mentioned and without them you could do nothing what ever with the air.

Again nature provides us with food in great abundance, yet how little does the civilized man take in his body as nature perfect ed it. Certainly very little. Most of his food must go through many processes before he will consent to use it as food. He desires the most of it cooked, which process must be done upon a stove or by some other method. The food to be delicious must be properly seasoned which involves different spices prepared possibly by the most intricate kinds of machinery and probably transported many miles, which could only be accomplished by the aid of invention.

4000 years ago or more the ancient had instruments for observing the different stars, and by improving these instruments and projecting their vision beyond this world, they and their followers have catalogued and

determined the position of many stars and have traced out the motion of all known planets. At first with so very simple instruments they could do very little, but now astronomical instruments have become so much improved that today we can with the most powerful instruments look at objects millions of miles away and study them. This is due chiefly to invention skill and we should not forget that our knowledge would be very limited of the great solar system had not these instruments been made.

During the second century of the Christian Era there was invented the mariner's compass. By this invention the navigator was not afraid to venture out from the land upon the deep waters. It enabled him to sail out upon unknown seas and thus bring home knowledge of lands the very existence of which had hitherto been unknown.

Without such an instrument Columbus probably would never have discovered a hidden country pleasant in climate, luxuriant in vegetation, and abundantly rich in mineral deposits. Then too the sailor would never have become what he is today, daring

and willing to sail out upon the angry waves of the boldest seas, but for this valuable invention. Through storm and through calm it directs him.

The invention of gunpowder compelled the abandonment of the crossbow, the spear, and the sling, and substituted in their places the matchlock, the blunderbuss and finally the breech loading firearm which have revolutionized the methods of ancient and modern warfare.

Many are unaware of the fact that so simple a thing as a table fork at the time of the discovery of America was unknown in the very best kind of polite society of the city of Paris, and that kings and queens looked at with their fingers as the primitive man was compelled to do. Even knit stockings at that time were almost unknown until King Henry VIII of England introduced them and wore a pair of them. They were considered a great luxury and were very valuable.

Even window glasses were unknown except in the king's palace. The streets of London were yet unlighted at night. They did not have the arc lamp with incandescent

light which we enjoy at the present time.

Printing too had just been invented and reading material such as books, pamphlets etc were scarce and very expensive. Even kings when they borrowed books were required to give good security and bibles were so scarce and valuable that they were chained to the pulpit.

But now we have all these things and the people are all the better off for them. To day not only kings may wear the knit stockings but all for they have been made so cheaply by invention that they may be procured at a very small compensation. Window glass may be seen in every palace, in every cabin. The streets of all cities may be illuminated and made as light as day by the incandescent and arc lamp. The printing press has become so well improved that today printed matter may be had very cheaply.

Whitnips invention of the cotton gin was perhaps one of the greatest and most useful invention at that time in the field of agriculture. It wrought wonderful results and by this simple machine as it was at that

time. more cotton could be turned out in one day than many hands could in the same time. It made cotton more cheap, influenced its production and enabled clothing to be furnished for millions who were unable before to purchase it.

With the beginning of the present century it has given us an era of inventive skill that will be handed down from generation to generation as the greatest era of invention ever known. It has given us the most useful invention of which others would be less useful than of the steam engine. To say nothing else of its other uses, what would navigation be today upon the broad ocean were it not for the steam power that turns the great propellers round and round groaning and fussing through the angry and boisterous waves of the deep seas.

When Columbus made his famous sail across the Atlantic in sixty-nine days, it was a slow and dangerous undertaking. But today with the grand achievement of the inventor, the engineer can send his ship across the same way in less than six days.

In the early part of this century few people there were indeed who dreamed of the gigantic construction of railroads crossing each other in every direction all over this land as is seen today. Think of our fathers and forefathers, who lived before the advent of railroads and imagine if you can their mode of travel. Think of them crossing this country from the Atlantic to the Pacific in a wagon drawn by an ox team, or a span of mules a journey which would take them weeks, ~~perhaps~~ sometimes to make. Contrast all these old methods with the modern improved methods as you see the iron steed drawing its many passengers over the same route in less than a week. Only then can you realize the great importance of invention over the interests of civilization.

Besides invention has given us the telegraph by which a message may be sent on a wire across the land or ocean in almost an instant. By it we can tell what may be happening in any place in the world in only a few hours, while our predecessors were unable to gain any

such knowledge in many days.

We have the telephone by which we may converse and hear the conversation of our friends at great distances. Even great operas may be heard by this means from miles away.

The invention of photography by which we can stamp the likeness of any object is of invaluable service to civilization.

The sewing machine the result of Howe's inventive skill and by others later on, have added much to lessen the toil of the seamstress and made clothing more accessible. It has reduced the work of the mother who can now sew the garments for her household much more easily and with less labor.

The farmer years ago, as he settled the wild wilderness received his land for a very small compensation. His agricultural implements were very scarce and such as he had were rude and awkward. His plow was built of wood or of cast iron and the soil was poorly stirred. Thus he harrowed with an old fashioned A drag with wooden teeth in it. The ground thus

prepared. he then sowed the grain broad cast by hand and dug ^{it} in with a drag, or covered it with a hoe. When the grain was ripe, it was cut with a scythe at first and he could do little more than a quarter of an acre per day. Later he improved this slow method and substituted the cradle by which he could cut from 1 to 2 acres per day.

This method too was very tedious and required much labor until the self rake was invented, when it lightened the work very much. But later still - 1872 Gordon invented the self-binder which has greatly stimulated the growth of all cereals.

And so the farmers of today enjoy the use of much machinery that our fathers and fore fathers had no opportunity of enjoying.

I have now surveyed the field of invention and the influence it has had upon civilization, and I might go on and mention countless other inventions which have wrought perhaps greater results. but I think enough has been said to show that the work of invention is truly greater than many imagine.

that-what we have and whatever we are we must not forget that these in large part are due to the work of invention, and that through all this civilization has reached its high stand and of morality and intelligence chiefly through these agencies.

The field of invention is still a large one and the future seems very promising. Men are at work today puzzling their brains and studying out new principles and what their work will amount to the future alone can tell.