IN PRAISE OF THUMBS

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How often in this vale of tears,
Ere we could shed a tear,
That sign of our humanity,
The thumb, has brought us cheer.

Our infant voices gained for us
Of sympathy no crumb;
But we relieved our own distress,
By sucking of a thumb.

Young parents often lose sleep picturing their infant prodigy with future teeth sticking almost straight-forward, tonsils and adenoids enlarged, and thumbs deformed, because they had not prevented the obnoxious habit of thumb-sucking. The devices employed to prevent it sometimes call the child's attention to the important members rather than stopping the practice, but for most youngsters the thumb has an importance during the early months of life that it does not assume later.

The following historical uses of the thumb and of its name are interesting. A "thumb" was allowed by custom in addition to each yard of cloth. An act of Queen Anne (1711) substituted one inch for this thumb's breadth. In 1812 the practice was

ordered discontinued.

"Thumb of Gold" and "Miller's Thumb" once referred either to dishonesty of millers, or their lucrative trade. turn over the thumb" meant about the same as "twisting around one's finger." "Under the thumb" meant secretly. the thumb of" still means subservient to. To bite the thumb at a person once implied insult; today certain persons of the baser sort sometimes apply one thumb slightly above the biting position and by wagging the little finger indicate extreme contempt. In Roman amphitheatres to close down the thumb meant approbation,-to extend it meant disapprobation. Dryden, in his translation of Juvenal's satires writes: "Where with thumbs bent back they popularly kill." The Chinese indicate approval of an activity by pointing the thumb straight up, while the fingers are closed, and war morale in Britain was maintained by the sign of "thumbs up." "Thumb kissing" was practised by persons, more superstitious than honest, who wished to avoid kissing the book so that they might lie while under oath. "Thumb

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licking" meant licking and joining together of thumbs by parties completing a bargain. Other phrases indicating ancient and modern uses of the thumb are to thumb loose a bow string, to thumb through a book, thumb index, rule of thumb, thumb tack, thumb hole in a palette. Victims have been tortured by being hung up by the thumbs, and an English book in 1684 described the thumbkins or thumbscrew as "a new invention, discovered by Generals Dalzeel and Drummond, they having seen them used in Muscovy." Thumb rings were once worn, especially by Aldermen, while a thumb stall was a shoemakers' or sailmakers' thimble.

To drink supernaculum was an ancient custom of emptying the cup and then pouring the drop or two left upon the nail of the person who drank it to show his steadiness. Tom Brown in his Letters from the Dead to the Living mentions a parson who had forgotten even to "drink over his right thumb." In the British Apollo (1708, Number 20) is the following:

Q. Say whence, great Apollo,
The custom we follow,
When drinking brisk liquors per bumper,
In a circular pass
We quaff ev'ry glass:—
And why is it o'er the left thumb, sir?

A. When mortals with wine
Make their faces to shine,

'Tis to look like Apollo in luster;
And circulatory,
To follow his glory,
Which over the left thumb they must, sir.

When the old nursery rhyme tells us that,

Little Jack Horner sat in a corner Eating a Christmas pie; He put in his thumb, and he took out a plum, And said, "What a good boy am I"

it mentions a digit that is at the same time a sign and an attribute of Man's humanity, the chief means whereby he has risen from the level of the brute creation around him, assuming of course, that he has so risen! The essential part taken by the thumb in forming the human hand, and the essential part taken by the hand in all the activities and progress of mankind have been emphasized by a number of writers in the past. In a book published in 1870 from the French of Dr. A. LePîleur, it is mentioned that the chief characteristic of the human hand

is the opposition of the thumb to the other fingers. In 1833 Sir Charles Bell, in an article on "The Hand" in the Bridgewater Treatise, insisted it had an extremely human characteristic and "it is upon the length, strength, and free lateral motion, and perfect mobility of the thumb that the superiority of the human hand depends . . . Without the fleshy ball on the thumb the power of the fingers would avail nothing; and accordingly the large ball formed by the muscles of the thumb is the distinguishing character of the human hand." Bell quoted Johnson's dictionary as saying the word poltroon was from pollice truncato (thumb cut off), a mutilation practiced by some to avoid service in war. Bell tried to prove flat creation and was opposed to Darwin's idea of gradual transition. It remained for the French Philosopher Bergson to show the middle ground, that the means by which the animal's organization is predetermined is the condition of the earth or of the surrounding elements, and that in the process of evolution itself there is of necessity an element of creation. As an old jingle used to say:

> Never you worry, never you fret God isn't done with the old world yet

Bell considered the hand as the instrument of the mind, not the cause of man's superiority. He would "rather say with Galen that man has a hand because he is the wisest of creatures, than to ascribe to his possession of a hand his superiority to knowledge."

Dr. Archdall Reid in an article, "The Mastery of the Earth and How Man Obtained It," shows that civilized man differs from the savage chiefly in the use of written symbols, whereby he can store knowledge, prolong individual and racial memory and perform feats of thinking, as in mathematics, that would be otherwise beyond him. If it be true that man's progress. past, present, future, depends on stored knowledge and its uutilization, both of which are possible only by using tools, and if moreover the distinguishing feature of the human hand is its thumb, then it is simple logic that the thumb is one of the chief if not the chief means whereby man has risen to his present position in the world. This means not merely that it has served the brain but that, by making it possible for the mind to store knowledge, to experiment, to manipulate, and to think, the thumb has helped to develop the human mind. The best scientific thought admits that in body man is an animal. What life and mind are, the wisest do not know; the mind seems to control the animal body only through the brain. Conversely, that part of the body that has most to do with controlling the rest of the material universe is the hand. The body seems to be the link between mind and matter, the brain being the part in contact with the mind, and the hand, with the essential thumb, being the part in contact with the physical world. It has been pointed out that man's adaptability, rather than high specialization of any part of his body, is the source of his strength; for example his body is not meant to walk, run, climb, swim, fly or burrow, but it is useful for making flying machines and railroads, boats for surface and depths, and for digging mines, and building sky scrapers. As Huxley pointed out, man's eve is imperfect as a telescope, imperfect as a microscope, imperfect as a camera obscura, but with this eye and the things he makes with his hands man can see farther, smaller and more accurately than any other creature.

What is the particular part of the body of man that makes possible this conquest of worlds without and within. Is it not the hand? And of the hand the distinctive part is, as we have

shown, the thumb.

Could you imagine man accomplishing his ends with the hand of a bat or a bird, the flipper of a whale, or the forefoot of a mole, the specialized forefoot of the horse, or the cloven foot of cattle? The only thing in nature approaching the human hand is the hand of the ape and monkey. These have four hands, and they are all used in climbing. Those animals can be trained to do a few tricks with tools, but their thumbs are just too short and too badly placed to be in the same class with the human thumb. For the great thing about the human thumb is that it provides opposition to the rest of the fingers, singly or together. This is an important thing for surgeons to remember in all operations on the hand, it being more important to save the thumb, or a part of it, than any finger, for so long as the surgeon preserves a member with two opposing parts, he is saving a hand, which can grasp tools. If the thumb is gone, however, the best he can save will be but a poor substitute, and the victim will live his life with a handicap. Because the other primates have four limbs that end in something like hands they are excellent climbers. The foot thumbs of the monkey are important to him in climbing, but while he can grasp branches with all fours, he has not long enough thumbs to enable him to pick things from the ground handily, nor to use tools with dexterity. This leads us to wonder just how the human

thumb was developed. It is really a wonderful instrument mechanically, providing the hand with a grip like a pipe wrench, which tightens as it twists, the thumb of course, being the lower jaw of the wrench. This, with the two hands so arranged as to oppose each other in any twist of the handle of a tool, gives a man a tremendous grasp of that handle. At the same time the tip of the thumb can be opposed to the tip of the finger, giving a delicate grasp that can pick up most minute objects with ease and safety. There can scarcely be doubt in one's mind that the Creator made the hand as the means whereby man himself could become a creator in his own right, thus growing into the image of the Creator.

There can well be doubt, and difference of opinion, however, as to how the hand was made. Was there once a common ancestor of ane and man, who for some strange reason (perhaps a defect or injury) began to grasp the branches with the first digit opposite the others, and did that make him better adapted to his environment, and his descendants after him? Milleniums later that first ape-man like creature who came down out of the trees and began to pick things up off the ground-did he thus develop his thumb and become fitter to survive? Or do not these Darwinian ideas sound just a little too simple and easy? As a matter of fact wouldn't that early thumb-ward tendency of the first digit be a handicap, rather than an asset? Would not the first few thousand years coming down out of trees to pick things up expose the developer of primitive thumbs to so many added dangers that there would soon be none of him left to propagate the race of "pick-uppers?" In other words. does not the phrase survival of the fittest really beg the question? It is another way of saving an attribute is fittest to survive, because it has survived! But why was it in the first place! In the progress of evolution have there not often been times when any one of several ways of development were open? Why was one especially chosen, and by whom? And why was the same line of development chosen for different species, after they had branched from a parent stem that never had that development? Asking questions like these, Bergson and others like him argue for Creative Evolution. In other words, the Creator is still at work, or else He placed in living things from the beginning some power that is capable of controlling and directing evolution to a desired end. In the evolution of the thumb was not the end in view an organ capable of expressing and developing the mind of man? If we compare the skeleton of apes and primitive man with those of later and more and more civilized man, we will note as we retreat from the animal and primitive man a tendency to retraction of the jaw and increase in the length and use of the thumb. This applies to characteristics of race and genus. Perhaps the moralist can see here a reminder that we can neither eat nor talk ourselves into success—we must work! Not only has the use of the thumb given man power over nature through the use of tools, but it has helped to develop his mind and imagination, as well as set him free from the need of spending so much time in ministering to his physical needs, giving him opportunity to meditate, plan, organize, think! There is evidence to show how early men were able to kill bison, bear, and the gigantic elephant and rhinoceros; and later Glacial men knew how to kindle fire, to kill the reindeer, to hit the wild swan with their arrows and to catch fish with their hooks. Having been set free by simple tools that his thumb enabled him to make and hold, primitive man gradually devised new tools and we find the beginning of industry: the making of pottery, and the use of the forge.

It is of course self-evident that all culture is dependent on the Whether the sketches on the walls of a cave in France done many thousands of years ago, or the latest splotch of color that the perpetrator calls "Snow in Summer," or "Fog in Saskatchewan", the work of the artist has been done with flint or pencil or brush held in a hand and guided by a thumb. of early art probably came writing. One of the early artists found he could send his thought to another by drawing on a slab of stone or a piece of clay. Also assisted by his all useful thumb he could put down an idea that he could recall long afterwards, just by looking at the picture he had made. Later, others took up the idea, and soon a system of conventional drawings came into use, later becoming symbols, and finally in some countries a phonetic alphabet. Not only while stylus and pen were the means of writing, was the thumb essential for the recording of human thought. The brush pen of China is also held and made with the aid of that distinctively human member. The typewriter, printing press and linotype, and all other means of recording words depend upon the effective use of the thumb for their creation of use, or both. In the realm of art similar things are true. Even the handy camera of today, which records its picture by means of intangible light reflected from the subject itself, must be held between the thumb and fingers of one hand while the thumb of the other presses the lever that releases the shutter.

The recording and playing of music depends on the human thumb. This fact scarcely requires laboring. It may be of interest, however, to mention that previous to the time of John Sebastian Bach the piano and its predecessors were comparatively poor instruments. The master musician greatly enriched life for his own and future generations by introducing the use of the thumb in playing the piano. The thumb string of the banjo has been compared to a wife—something to tide man over a difficult situation and enable him to rise smoothly to higher things.

It scarcely seems necessary to mention other human activities to show how essential the thumb is to humanity. Without it, can you imagine early man grasping pole, paddle or oar, and learning the rudiments of navigation. Later could he have twisted ropes and woven sails and gone to the ends of the earth over the seven seas? In other words, the human thumb is the essential member that has made possible the spread of the race over the surface of the globe, and the establishment and maintenance of trade and commerce. The houses men build require a tool-using hand for their construction, whether they be tree dwellings, modified caves, wooden or stone buildings or steel framed sky scrapers. The same is true of fire and furniture and all that makes the word home mean so much more than house. On the hill of ancient Troy men have unearthed seven towns, one above the other dating from the stone age to the time of Grecian greatness-and of which of these could it be said that it might have been constructed by a race of thumbless beings? As soon as men began to build large structures community effort was required and community life developed. It is possible that the need for more than two thumbs to do the job was the primary cause of the rise of human Society.

The writer would not be misunderstood! He is not suggesting that the thumb is the only, or even the chief, human attribute. He is merely trying to emphasize something that has been too much forgotten: that the essential feature of the human hand is the thumb, and there is nothing else just like it in creation. It has probably had more to do with man's development mentally, morally and culturally than anything else except the brain itself, and has been both an incentive and a means to the development of that organ. Manual labor is therefore not in any way more lowly or debasing than mental labor. Nearly

all useful labor involves both, the relative proportions varying Mental training does not preclude manual dexterity, There is however, too much tendency today to or vice versa. train all our young men for so-called white-collar jobs. in many cases skilled labor is at a premium and there is a dearth of trained thumbs! The need for trained thumbs in war industries and the armed forces recently called attention to this In particular does our grade school system err in this Surely the day cannot be too far distant when the man who earns his living with his hands will often if not always, be equal culturally to the one who supports his family by taking out appendices or chlorinating the city water supply, teaching the neighborhood children or judging those whose activities bring them to court. In other words, let us have educated men who can do as well as know! Let us continue the development of the human thumb along lines of greater accomplishment!

Would that we might stop with this thought and feel duty done. But, alas, in recent years a terrible thing has been happening to the human thumb. It has developed in the wrong direction. Its strength and importance has lain in its opposition to the other digits, but recently it has been separating itself from the rest of the hand to point directly away therefrom. It is high time someone called attention to this over development, or rather faulty development, of the human thumb. In it lies grave danger to the race. So; once someone invented the term "hitch-hiking," the obtaining of transportation at other peoples' expense has become almost respectable. In essence, however, "the thumber" represents an attitude to life that is bad, undermining the character of our people, especially the young. He expects the reward of other men's labour. His demanding thumb represents the vicarious efforts of others. young people are learning to "thumb their way," not only along the roads but through life: Thumbers in amusements, who seem to think the world owes them an amusing and entertaining existece and do nothing to entertain themselves; thumbers who manage to acquire an entirely undeserved amount of purchasing power without returning any commensurate value to society; thumbers who expect to travel at the expense of a mysterious and beneficent motorist known as The Government.

Parents and school teachers, churches and college professors, should endeavor to show the rising generation the dignity and self-respect, not to mention the absolute necessity of paying one's way. Young people must learn to amuse themselves

without much expense. They must learn that the man who does not plan to contribute some useful service to humanity through his business life, while getting service from his fellows. is quite as much a crook as is he who robs a bank. They must learn to think in terms of independence and interdependence. but not of dependence. They should learn the principles of government through a contributory democracy. The rising generation must realize that if, and when, any considerable percentage of our people have that attitude of mind that is represented by the upraised and pointing thumb, our country is doomed to become decadent, will lose the power of initiative. and will succumb to The Threat of the Thumb. However, if, instead of demanding services from others, the thumb is employed in its proper sphere of creative service, there is as vet no limit in sight to the progress possible for the race whose distinguishing physical characteristic is possession of thumbs.