92,000

4,300,000

can we expect to result from our chimp typing out these first two words? On the "average," 27,720 million million sheets! would be wasted to achieve a two-word goal — THE OPIGIN — typed neatly on the twelfth line, where the human assistant started our chimp off.

And the stack of 27,720 million million wasted sheets? How high? A thousand sheets of paper might be about six inches thick; two million sheets, a thousand feet high; ten million, roughly a mile high.

But 27,720 million million sheets would reach into the heavens — out past the moon — all of the 93 million miles to the sun — and over a thousand million miles further for a total of 2,772 million miles. All this waste by using the "random pecking" method of a chimp to type out the first two words!

THE ORIGIN... just that much by chance. How many tons of paper? Eight pounds for a thousand sheets. Four tons for a million sheets. Thus our chimp has wasted 10,880 million tons of writing paper — tens of thousands of times the production of the U.S. in a year.

To inquire where we got the monkey (I mean chimpanzee) in the first place, and where the intelligent human assistance, and where the typewriter, would only cause further embarrassment at this point. And ... whether any chimp would either submissively or mischievously peck keys at random? Finding the X, wouldn't he go XXXXXX, then XX, XXX, and then go off in search of something else to monkey with?

But let us return to our chimpanzee. How long has this taken him? Not 21 seconds...not 21 years but...? Allow a second to insert the sheet, a few seconds to make an error and a bit more time to discover the

The probability of success is p = 44-16 and of failure

is q=1-p. The probability of the chimp succeeding

the first time is p, of failing the first time and succeeding the second is qp, of failing the first two times

and succeeding the third is q^2p , etc. Therefore, the expected number of wasted sheets of paper is $op + qp + 2q^2p + 3q^2p + \dots = (1/p)-1$, which is ap-

proximately equal to 4410.

error, stop the chimp and remove the

Five seconds per sheet would allow twelve sheets per minute, 720 sheets an hour and 5,760 for an 8-hour day. Our 27,720 million million sheets would then represent more than 4,800,000 million days. With 235 working days in a year (a month's vacation for other monkey business), our chimp is either 20,000 million years old...or we are four thousand million chimp generations later.

A Title for Darwin's Book

But we began a task; let us complete it. Twenty-one correct typewriter strokes will complete the title — THE ORIGIN OF SPECIES. And the chance of being correct in each stroke is only 1 in 44. (The chances of error are 43 in 44.) The odds to type out 21 correct consecutive strokes are 44 times itself 21 times, or in the mathematician's mode of expression 44^{21} .

A few minutes with logarithms changes 4421 to about 1034.5, then back to layman's mathematics as the number 325 followed by 32 zeros. (Six zeros would produce a million.) But adding 32 zeros produces an answer of 32,500 million million million million. That many sheets would produce a stack 3,250 million million million million miles high! But that distance is ten thousand times the assumed extent of the universe. The number of sheets of paper is millions of millions of times greater than the estimated total number of stars (1,000 million million million) in the uni-

"By faith Abraham..." firmly believed and obeyed a God he had seen, talked with and trusted, but by a superstitious faith the atheistic evolutionist is firmly convinced that a "monkey and a typewriter" "could" produce The Origin of Species. Or at least so goes the favorite analogy. Evolution "is now an integral part of all general education and culture. To suppose that it may some day be abandoned is to live in intellectual barbarism," writes evolutionist Henshaw Ward in his book Evolution for John Doe,

Review the problem. Note the sim-

plicity of the accomplishment — 21 correct typewriter strokes in a row. Done by intelligence by the chimp's human assistant, THE ORIGIN OF SPECIES would have required just about five seconds. Attempted by chance by a hypothetical chimp it would require 20,000 million years to produce the first two words, THE ORIGIN.

"If it really is true that [man] is merely the inevitable culmination of an improbable chemical reaction... then the fact that he has been able... to trace himself back to it is remarkable.... That chemicals which are 'merely material' should come to understand their own nature is a staggering supposition. It is also a preposterous one" (The Great Chain of Life by Krutch, quoted in Life, January 28, 1957, page 28).

The Origin of Life?

What is life? In the simplest physical description, life's blueprint is a delicately designed molecule three feet long and much, much thinner than a spider web. Each atom in this three-foot chain is precisely placed, as precisely as are the letters in a word and the words in a sentence. Each cell in our body contains an identically coded chain. Every living creature has its own unique pattern and sequence of millions of atoms.

To produce such a sequence of atoms by chance. is unthinkable. To have highly educated men today profess belief in such an untenable doctrine is, to put it mildly, incredible. And to have these educated men dogmatically teach that evolution is no longer a theory but a fact, and that to doubt it is to "live in intellectual barbarism," is a tribute to the capacity of the human mind for self-deception.

But as a skilled secretary types out — THE ORIGIN OF SPECIES — in five seconds, so a skilled Creator arranged a few bucketfuls of red earth into a walking, thinking, living man in a very brief time one Friday about six millennia ago.

105 des