

FANTASTIC UNIVERSE

FEB. 1958
Vol. 9, No. 2

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FANTASTIC UNIVERSE, Vol. 9, No. 2. Published monthly by King-Size Publications, Inc., 320 Fifth Ave., N. Y. 1, N. Y. Subscription, 12 Issues \$3.75, single copies 35c. Foreign postage extra. Reentered as second-class matter at the post office, New York, N. Y. The characters in this magazine are entirely fictitious and have no relation to any persons living or dead. Copyright, 1957, by King-Size Publications, Inc. All rights reserved. February, 1958. Printed in U. S. A.

the makers

by *WINONA McCLINTIC*

The police arrived just in time. The mob was shouting "anathema" and battering at the door of the old mansion.

MY OLD friend, Dr. Thomas Felix, had written, asking that I come round Thursday evening. He hinted that his recent experiments had progressed to the success he so richly deserved. I had been a friend of the retired professor, since *Zoology 1* at the University; he had flunked me in order to save my talents for other pursuits. Even in those days, Dr. Felix was an enthusiastic chemist, and many a party was organized in his battered laboratory to drink up the results of experiments, lest the Regents discover to what use the kindly old scientist was putting their crucibles and bunsen-burners. All through my years on *The Yowl* we had maintained our relationship, unhampered by domestic ties —the good doctor was a confirmed bachelor and I could not support a wife. Since the doctor had retired about two years ago when his feet got clumpy, we had seen one another less frequently. This secret research was the cause. Therefore, when I received the note from my old, gray friend, I accepted promptly.

I knocked on the great door of the mansion at the appoint-

Winona McClintic, widely published West Coast writer (including in the Atlantic Monthly) makes a first appearance in these pages with this unusual story of the historic experiments of Dr. Thomas Felix, retired Professor of Zoology, and the reactions of his fellow citizens as he succeeds.

ed hour. Dr. Felix himself let me in, smiling with pleasure and with barely controlled triumph and excitement. He led the way to his study at the back of the house, explaining that Old Tabitha, his housekeeper, was visiting some Serbian friends. The study was huge, two rooms remodeled into one large chamber. Bookshelves occupied three walls, a fireplace decorated the fourth. Here in these leather chairs the professor and I had passed many nights, talking of his work and of the plight of the universe. Now the doctor made us each a hot whiskey and prepared to discuss his recent endeavours. He knew well that my pleasure would be as great as his, if world-fame crowned his achievements, whatever they might be.

"The idea first came to me," said Dr. Thomas Felix, "when I read of an incident in the paper. Whether the article was written by you, I could not tell, but the kindness and almost human charity with which it was presented brought you to my mind as I read. It told of a mother leaving her tiny infants at the Creche with a note saying that she could no longer care for them. The article described how the mother must have crept to the door, concealing her features in a large shawl, carrying the basket. Then, with a last sad look at her issue, she lifts the

iron knocker, and runs weeping from the steps. The sisters open the door, see the basket, and snatch it in with cries of joy and admiration. A scene to wring the hardest heart! The only child abandonment in two hundred years!"

"But why was it necessary?" I interrupted, for I had, indeed, written the article and was still puzzled at the motive. "No one today lacks food and shelter, and, pregnancy being so rare, it is considered almost miraculous to produce young. Everyone wanted to adopt the waifs."

"Ah, we can only wonder at the reasons of the unfortunate mother!" exclaimed the good old doctor. "Nevertheless, that episode set in train my experiments, which only last week reached fruition. My discovery will affect the world when it is made known; only a few details remain to be worked out, but—I have succeeded!"

"That discovery is—?" I was breathless with anticipation, for I had caught fire from the flames of genius before me.

"I have made cats!"

I was stunned by this declaration. The secret of life discovered, a miracle of science in truth! We both were silent as we finished our drinks. The doctor made us each another, and began to speak softly, describing how he had discovered the secret

of creating life, and the steps through which the creation passed. He had a tank of young cats, raised from artificially inseminated eggs, in various stages of development in the next room. He was making them as fast as he could, for the demand would be great when the secret was revealed. Dr. Felix had taken up the study of hydroponics in order to grow his own tomatoes, or, love-apples, as they are sometimes called. The combination of love and hydroponics set the old professor's brain to ticking. Why not create higher-life-forms, hydroponically? Why not, indeed? Robots were not built in a day! And so the experiments began.

"The foetus," explained the great benefactor of the race, "obtains a great part of the fluid necessary for its development from that which is contained in the amniotic sac. Ergo, if the problem of oxygen could be solved by some mechanical device to replace the natural passage of oxygen through the umbilical cord and its vessels, why could not a foetus swallow enough artificial amniotic fluid to keep it alive and developing until the Birth Insult, as it has come to be called?"

"But—oxygen!" I cried, all agog, "that is the problem! What could you do about the oxygen?"

"I solved that problem," said Dr. Thomas Felix with

massive simplicity, nodding his old, gray head.

"You solved it! Astonishing!" I cried, "did you force air through the umbilical cord?"

"That, of course, would not be possible," answered Dr. Felix, reprovingly, "surely, even a basic understanding of the principles of zoology admits that fact. No, the problem must be solved mechanically. I have done so."

I stared at the doctor with wonder in my eyes and my ears ringing.

"Come, Blackie," said Dr. Felix, and he led me into the adjoining chamber. Here was a sight to startle the imaginative and to convince the incredulous. A vast, clean, gray room, a twilight in which an atmosphere of peace prevailed—such was the laboratory of Thomas Felix, scientist. In the middle of it was a large tank from which came a humming, pulsing throb, wonderfully soothing in its effect upon the senses. The tank thrust into the air a number of thin, straight sticks like slender periscopes drifting lethargically. Beneath, and attached to the sticks, drifted soft, gray masses, submerged like dreaming organs.

"My children," stated the professor proudly, "soon to 'live' in the other meaning of the word, to caper and frolic, to suffer, to believe, to hope,

to sleep perchance to dream, to—."

I interrupted the estatic monologue.

"But—" I stammered, "what are these children? What are those sticks which I observe above the surface?"

"They are umbilical cords," said Dr. Felix, coming back to pure science.

"Umbilical cords!" I cried, "astounding!"

"Elementary," returned the good professor with some heat, "every fool knows that the umbilical cord is the 'lifeline' of embryonic life. The problem, as I have stated elsewhere, was chiefly one of intaking of oxygen and outgoing of carbon-dioxide. The partaking of nourishment in a warm, cozy environment would be, for the foetus, the merest bagatelle, both theoretically and, as it turned out, in actuality. That is why I have named this warm, gray tank: *The Bagatelle*, disregarding Old Tabitha's suggestion of *The Enormous Womb*." He fell silent and gazed at the passing cords.

"Professor," I said respectfully, stroking my whiskers, "start at the beginning. Explain your methods to an amateur."

Dr. Felix simplified his lecture terms for one who was a tyro in the life-sciences. The nourishment problem was resolved after a few tests with amniotic fluid, which is alkaline in reaction, has a spe-

cific gravity of 1,006 to 1,008, and is 98.48% water. Using the trial and error method, Dr. Felix finally devised a solution of amino acids, sugars, fats, etc. The exact proportions were determined. The next step was the mixing of the various hormones of adrenal and pituary glands in correct amounts. Isotopes of certain elements were procured, and other chemical properties were adjusted. At last it was ready—the solution which would nourish the young foetus in an artificial uterus. A little starch was added to stiffen the umbilical cord. *The Bagatelle* lay waiting for its children.

As he finished his brief account of the long months of labour and of yearning, Dr. Felix made ready to show the finished product: young cats still "unborn."

We bent over the tank, watching the sluggish yet somehow lovely movement below. Dr. Felix gently seized a cord and drew it through the fluid to our side of the tank. Then, placing his hand beneath the surface of the liquid in order to support the spine, he quietly lifted out a wet, furry little body curled in the uterine position with eyes closed and features composed. We gazed in awe at this small yet perfect creation. Suddenly, I noticed that the kitten was not breathing.

"Dr. Felix," I cried, "the little fellow does not respi-

rate. Should you not spank him to facilitate this necessary process?"

"Ah," said Dr. Felix in a pleased way. He returned the young cat to its habitat before he turned to explain. "There you have touched upon the first barrier to the successful creating of 'life'. But from passing, or, 'breaking through', as we scientists say, this barrier, I gained an added marvel to supplement my method. Do you hear the humming sort of sound coming from that engine beneath *The Bagatelle*?"

"Indeed, I do," I answered eagerly, "and for some time I have been anxious to inquire about its relationship to this pseudo-uterus."

"The intricacies of that machine must be kept a secret until I have secured the patent, for without its use, success would never have come. I may tell you, however, that it is an oxygen machine, built to my specifications by an old watch-cleaner of my acquaintance, who was not told the purpose of his work. The design is an extension of the principles of the artificial lung, and its function is the pumping of oxygen by certain means into the amniotic fluid, whence it is distributed evenly, and, eventually, absorbed by the foetus with the other incretions necessary to natural growth and maturation. Thus, the foetus does not 'breathe', as we do, and

the lungs lie quiescent until needed. Once used, of course, the process of 'breathing' through the lungs must continue, or life soon becomes extinct."

"So much for the oxygen intake," I said, "but how is the carbon dioxide eliminated, Doctor?"

"Umbilical cord," he explained, "same principle as a leaky gas-pipe."

"And what is the other effect of which you spoke?"

"Possibly you noticed," said Dr. Felix, "that although the kitten did not 'breathe' when brought into the air, he was returned unharmed to continue his dreaming existence in the amniotic fluid."

"I did, indeed," I replied quickly, "yet ceased to wonder as soon as you explained the oxygen machine beneath *The Bagatelle*."

"Imbecile!" muttered the great scientist, yet with a certain tolerance seeping out, concurrent with the expressed contempt, "you missed the entire point of the illustration. Did you not observe that the young cat had developed far beyond the normal period of gestation?"

"So it had!" I cried, "amazing!"

"Not at all," replied Dr. Felix modestly, but I could see that he was pleased by my wholehearted admiration, "this was one of the ideals which motivated my initial attempt, and which served as

a stimulant during the entire course of the project. To be brief, why should all the young be brought forth after the same period of dwelling in the womb? Infants are thrust into the world, helpless and fearful, whether they are psychologically ready to step forth into the light of day, or are casting a desperate backward glance at the twilight of security: 'standing with reluctant feet, where the brook and river meet—'."

"Yes, yes," I said quickly, "but how is this prolonged prenatal life managed?"

"'Prenatal' is a misuse of the word," explained Dr. Felix, "these cats are not 'born' in the customary sense of the word. They are simply lifted from *The Bagatelle* and awakened. Think what this means, Blackie! It nullifies the danger of birth injuries, traumatic experiences which burrow into the subconscious, and eliminates the perils of the first few months of life, during which time infant mortality reaches its highest figure."

"Amazing and have you permanently activated any of the sleeping cats?"

"Several," answered Dr. Felix, "I took them to the Creche in the dead of night, and they were adopted the next day. Word was not given out to the Press. It is my belief that inquiries are being made by the authorities. Birth and reproduction are

rare enough to become a government monopoly."

"Let us awaken one of the sleepers now," I begged, "I am most interested in seeing its youthful reaction to the strange world of 'real' life."

"Very well," said the doctor, "but I myself must choose the specimen which has matured sufficiently."

He hovered over the tank thoughtfully and selected a cat. It was drawn up softly and placed, dripping wet, upon a delivery table by the window. After patting it dry with a sponge, Dr. Felix poked the tiny ribcage in a rhythmical series of movements, chanting softly, "one, two, three, four." After about five minutes, the lungs of the kitten took up the rhythm, breathing in and out without medical attention. Next, the tiny paws uncurled from under the chin and the blue eyes opened and looked about. The doctor seized a pair of surgical scissors, trimmed the umbilical cord down to 1/6 of an inch, swabbed the area with alcohol, and pressed a band-aid over the navel. The kitten stretched and relaxed, testing its newly acquired power of independent motion, and then stood up to wobble beneath our reverent heads. He licked his fur with a pink tongue.

"'Not from afar,'" whispered the old professor in ecstatic tones, "'and not in utter nakedness, but trailing

clouds of glory do we come'."

We found five more kittens at the proper stage for birth-ing, and awakened them in r a p i d succession. They frisked about on the delivery table and uttered small cries which sent the good doctor into transports of delight.

Later that night, when the city slept in its childlessness, we set out for the Creche with the kittens carefully wrapped in flannel against the cold. Placing the basket by the door, we rang three times, and ran back to the professor's study. The kindly scientist was chuckling with pleasure all the way home. Little did we foresee the psychological repercussions of that abandonment!

I slept late the next morn-ing and arrived at the office around noon. The staff of *The Yowl* seethed in a condition of the highest excite-ment. Word of the new "births" had been announced by the government, and rumors were spreading that an unknown scientist had dis-covered the secret for him-self in order to sell young lifeforms at prices that only the wealthiest could pay. Hysteria mounted, and the streets became crammed with gesticulating citizens. I rushed posthaste to the pro-fessor's house, following the tailend of a mob which shout-ed the name, "Thomas Felix," as it surged through the byways.

The frenzied mob was bat-tering the door of the man-sion, but it held firm. Through the cries of "anathe-ma!" and "dictator!" could be heard the brave voice of old Dr. Felix, trying to quell the uneasy spirits of the rab-bble. Finally, the police force arrived, and just in time, for the catcalls and jeers were sounding more dangerous by the second. The police knocked on the door, were ad-mitted at once by Old Tabitha when she recognized the uni-forms through the peephole, and the crowd became less rowdy. They were not hood-lums and ruffians at heart, but law-abiding citizens.

After a few minutes the door opened again. The po-lice appeared with the great scientist, Thomas Felix, who proudly indicated that he was going to speak. The citizens were shushed and the report-ers, including myself, put pencil to notebook. Everyone has read that speech in *The Yowl* under my by-line; eve-ryone knows of the amaze-ment and reverence with which the eager millions heard the professor's cold, hard facts about reproduc-tion. Dr. Felix announced with simple dignity that each of us could make cats in his own home. The method was old-fashioned but practically fool-proof.

"I do not want wealth from my discoveries," were the concluding syllables, "but

fame, that fame which is given to the benefactor of the race—the highest reward of an individual."

The crowd, which had listened with increasing faith to the professor's thesis, now applauded wildly. The police and Old Tabitha were passing with tea and small cookies among those who had come to jeer but remained to cheer, as I left for my office to write an account of that evening which has become history. As I finished the story and submitted it to the editor, I came to the decision which has changed my life. I went into the next room and proposed to Moll Gray, the fashion editor. She, too, was overcome by delirium and happiness; she accepted me on the spot. We were married the next day, and, I can truly say, have lived happily ever after.

One afternoon we had just finished making a cat, when

Moll suggested that we invite Dr. Felix over for dinner. He accepted when I called, for we were the best friends he had these days. So great was his reputation that social intercourse was impossible—everyone was awed by Thomas Felix, benefactor and scientist. When he arrived and had settled down for a drink before the fire, we told him our news. We had made a cat and intended to name him after our friend. The old doctor's eyes filled with decorous tears and his noble smile is the pleasantest recollection of my lifetime.

"My first godson!" he exclaimed, "well, well. Little Thomas Felix!"

The greatest scientist in our history stroked his whiskers with a gray paw and twitched his tail in simple contentment, as he gazed at the blazing fire and envisioned the never-ending future of our race.

THE WILLINSKI-ORR SNOOPER

Martin I. Willinski and Mrs. Elsie Orr, research engineers with Rocketdyne, a North American Aviation division, recently outlined plans for a fleet of unmanned ships that could be sent into space in advance of our sending up manned starships.

In contrast to rockets, the Willinski-Orr "snooper" would be small (it would weigh only 1½ tons) and would be propelled by an ion engine. (Rocket engines are generally chemically propelled.)

The classical concept of a space-ship, the two engineers pointed out, usually calls for considerable outlays. Their own ship, unmanned, could be shot into space where it would then circle another planet (satellite fashion) for a year or longer at much less cost.