

Leonard Tushnet's engaging stories — many of them utilizing various aspects of Jewish life as background — have been welcome additions to these pages since 1964. Dr. Tushnet, in addition to being a first-rate storyteller, is a physician, and his latest story concerns an offbeat healer and her devoted following.

# Aunt Jennie's Tonic

by LEONARD TUSHNET

AUNT JENNIE WAS A WITCH OR A saint. Or an ignorant old woman. The first two descriptions were subjective, depending on your dealings with her. The last was more objective, except for the “ignorant” part.

Aunt Jennie was nobody's aunt, as far as I know. The title was purely honorific, given in recognition of her advanced age, 108 the year she died an untimely death. She would have been called “Grandma” if she'd had children. I was the closest thing to offspring that she had. I recall her as an old woman, rambling in her talk, going back and forth in time and space, giving irrelevant details and omitting important ones, getting sidetracked into reminiscences and then skipping ahead so much that I got lost and had to have her repeat herself.

That often made her angry. Once

she sneered at my notebook on the kitchen table. “You went to college and you can't remember from here to there. Me, I never learned even the Aleph-Beth and I could recite out of my head books and books you would take twenty years to write down.”

She was probably right. Unfortunately for me, I had double trouble in my interviews with her. I had to mentally translate her barbarous Yiddish dialect, interlarded as it was with Hungarian and Slovak words, and then retranslate it into anatomical and chemical terms before putting it down on paper.

Those people who called Aunt Jennie a witch used the word metaphorically. They disbelieved in her charmed potions. They were rational doctors, rabbis, social workers. They railed at her followers as superstitious fools. They tried to influence the Board of Health, the

City Law Department, and the Jewish Community Council to have her put away in a nice safe place like the Home for the Aged.

They were unsuccessful because those who called her a saint meant what they said. The parents of girls "in trouble," the relatives of lunatics, the senior citizens who came to her for tonics were grateful. They saw to it that her frame house on Avenue K near the abattoirs was fireproofed and a sprinkler system installed; they provided her with matzos for Passover; they arranged for weekly deliveries of food.

Aunt Jennie was old, very old. She was small, her neck bent by arthritis, her hands gnarled. She kept a coal stove going winter and summer in her little three-room house with its bedroom, a large kitchen, and another room whose door was always locked. She wore a babushka that hid her dark-brown hair, a shawl, a shapeless cardigan sweater buttoned up to the neck, and a heavy woolen skirt over several petticoats. She was never without an apron, and she never wore shoes but padded about in heavy felt slippers.

She was really 108 years old when she died, give or take a year. I know because my great-grandmother was eight years old when she came to this country in 1873. The ticket of entry at Philadelphia from Trieste is still in the family scrapbook. My great-grandmother was born in Homona (then Hungary, now Slovakia). She was orphaned in one of the epidemics that periodically swept the

outlying areas of Franz Josef's empire. She was sent for by a well-to-do relative in Newark who also sent enough money for a traveling companion. That companion was Aunt Jennie. Great-grandma's ticket says "in charge of Shaindel Weiss," giving Shaindel's age as twenty. My great-grandmother died at 96, active, bright, alert, not a white hair on her head, her skin rosy and smooth as a teen-ager's. Her death was by accident—she tripped over a toy left on the stairs by one of my cousin's children, fell downstairs, and broke her neck.

Aunt Jennie died only a month later, not by accident. She was killed, not surprising in view of where she lived. The kids who killed her were caught when they tried to spend the mutilated gold pieces and the silver dollars. They hadn't meant to suffocate her, they said. They just wanted to keep her quiet while they searched her house for the fortune she was supposed to have. But the gag they used was a rag she had in her hand, saturated with metal polish, and they stuffed it too far down her throat.

The first time I saw Aunt Jennie I was already in college. I'd heard of her as part of the family lore, always spoken of with respect, except by Dr. Allan, Aunt Rose's husband. He pooh-poohed her "miracles" as the results of suggestion therapy, quoting Freud's statement: "There are more cures effected at Lourdes than by psychoanalysis." The family paid no attention to him. They told

of Mollie Frohlich, a violent maniac until Aunt Jennie took her in hand, and of Lawyer Greenbaum's son who didn't grow until he followed Aunt Jennie's advice, and of Sarah Miller, given up by doctors but brought back to health by Aunt Jennie. I also heard whisperings about other treatments Aunt Jennie gave, treatments adjudged unfit for children to hear about.

My great-grandmother attributed her own good health to Aunt Jennie's tonic, a thick brown-black foul-smelling liquid. Every Friday night, after she lit the candles, great-grandma would take a tablespoonful of her tonic, shudder, and quickly chew on celery to get the taste out of her mouth. Then she'd lament, "Ai, if my husband (let him rest in peace!) wouldn't have been so stubborn, he would be here today! But he was an Apikouros." Epicurean is the generic Yiddish word for an atheist, an unbeliever. In this case, an unbeliever in Aunt Jennie's tonic. Great-grandma's four sons, my great-uncles and my grandfather also took the tonic. My grandmother never had; she died in childbirth. My father, an Apikouros too, refused it; he said he preferred gray hairs to a sick stomach.

The tonic came in a one-ounce bottle, enough for a month. When the bottle was empty, Aunt Jennie would refill it at a cost of a bottle of cherry brandy, one of almond extract, and a five-dollar gold piece. Five-dollar gold pieces became worth much more than their face value, but

Aunt Jennie refused other payment. The family grumbled but paid up when my grandfather or his brothers asked rhetorically, "Will it be cheaper for you if I were like old man Abramowitz in the Daughters of Israel Home or like Hochberg laying in bed, filthy like an animal and blind? Or like poor Mrs. Weinstein, wandering around the streets the police always have to bring her home and you'll have to tip them?"

One day there was nobody to go for great-grandma's tonic but me. A big blue Cadillac was parked outside Aunt Jennie's house. I knocked at the door, was told to enter, and saw an astonishing scene. Aunt Jennie was holding a brown paper bag, and a middle-aged well-dressed man was interpreting her instructions to the mayor and his wife. (I recognized them from newspaper pictures.) "Everything will continue to be good," Aunt Jennie was saying. "Don't forget—no salt in his food and no food made with salt. Let him take every night one teaspoon of the powder mixed with pure spring water." Mrs. Callaghan dropped to her knees and kissed Aunt Jennie's hand. "May the Holy Mother and all the saints in Heaven watch over you!" Mayor Callaghan, tears streaming down his face, handed Aunt Jennie a little cloth bag. "I can't thank you enough. You've saved us all." Aunt Jennie hefted the bag. "It's all there," he went on, "and all in gold, and if you want twice as much, just let me know. I'll clean out every coin store in town for you.

And if anybody ever bothers you about anything, just let me know." The interpreter looked at me, shrugged, and then translated only the mayor's remarks.

The Callaghans left. I grabbed the interpreter's arm. "What's this all about?" I asked.

"They have a son, he was *meshuga*, and she cured him," he answered. "I gotta go. They're waiting for me."

I introduced myself to Aunt Jennie. She grimaced in what she supposed was a smile. "So you're Tsilli's great-grandson? And for what are you studying?" (Studying was taken for granted in one of my age.)

"To be a chemist." I explained to her what a chemist did.

She kept nodding but I didn't think she was listening. When I finished, she said, "You speak a beautiful Yiddish. So many young people come here they don't know a word."

I told her my Yiddish was the result of six years at a Sholem Aleichem school. I didn't tell her I was forced to go there by my father, a rabid secularist who equated Hebrew with the synagogue.

She patted my hand. "It's good to learn the mother tongue. Sit down a while and talk to me. People come but they run right away. All they want is my medicines."

I sat down. While she carefully filled the little bottle I asked, "What was the mayor so happy about?"

Aunt Jennie screwed the cap on the bottle. "He has a son, went crazy

like a dybbuk was in him. With my powders he's now better." She looked at me shrewdly. "My child, I'm a bit of a chemist, too. I make special medicines. Only a few, but good. I learned from a wise man in Nagy Arok the time I ran away from home." She rambled on with a very romantic tale of a betrothal when she was fourteen to a man she didn't like. It was interesting at first, but the unnecessary details with which she embroidered her story became boring after a while. I got up and excused myself, saying I had to go on other errands for my great-grandmother.

"Go, then," she said. "You're a good boy to do what your elders want. Come again next month."

I didn't see her for several months. That time I met in her kitchen a weeping girl with her embittered mother. The mother was arguing with Aunt Jennie. "Ten silver dollars! There's no bank open now. Where will I get silver dollars? Here's a twenty-dollar bill. Take it and give me the pill."

Aunt Jennie shook her head. "Not for fifty pieces of paper like that." The woman flounced out, dragging the girl with her.

I was curious. "Why didn't you take the twenty dollars?" I asked.

"Because I need the silver. And the gold. You're a chemist. You should know. Can you use paper when you need metal?" We chatted. She asked about great-grandma and her friend, Mr. Gottfried, and complained that nobody came to

visit with her any more. "With automobiles they're afraid. With horses and wagons they didn't worry about the bad street." Indeed, Avenue K was in poor shape. Rubble from the buildings demolished to make way for the new skyway lay all around, and trucks from the nearby slaughterhouses had rutted the streets. Everyone but Aunt Jennie had already left the neighborhood.

She took a liking to me. She made coffee and gave me sweet hard cinnamon cookies. She told about her life with the wise man of Nagy Arok. "What he had in his little finger a dozen professors don't have in their heads." I was polite, not letting Aunt Jennie know what I thought she was—a herb doctor convinced of the efficacy of her concoctions and mysterious enough to convince others.

I didn't see her for a long time. I got my degree, my Master's, and then my Ph.D. I got married. I had a son. Aunt Jennie, Great-uncle Bernard said, often inquired about me and was pleased with my progress.

Shortly after I began work as a junior pharmacologist at Reinhard and Kessel, my cousin Estelle attempted suicide. This was her fourth try; and when she got out of her depression, she promptly entered the manic stage of her psychosis. The doctors advised commitment to an institution. Great-grandma intervened. "You've spent a fortune already and no results. Why don't you try Aunt Jennie?" Aunt Bessie hopelessly agreed.

Estelle's cure was the talk of the family circle. "She was better in one week," Aunt Bessie said. "In one week! And just from a no-salt diet and a plain white powder! We get spring water delivered for Estelle from the health-foods store."

I paid little attention to the talk. I'm not a physician, not a psychiatrist, but I knew that patients with manic-depressive psychosis could have long periods of normal behavior between their swings of mood. But less than a year later came the word that lithium salts were very effective in the treatment of mania. I recalled the Callaghan episode. I begged a little of the powder from Aunt Bessie and analyzed it. It was an impure lithium salicylate.

I was a scientist, and an ambitious man. Not stupid, either. Paracelsus had said that the best materia medica came from herbalists, wise women, and shepherds. I knew of the drugs that had entered therapeutics through folk medicine: the Peruvian bark for malaria, ephedrine from the Chinese *Ma Huang* for asthma, the tranquilizer reserpine from the Indian snakeroot, and many others. I knew that witch doctors and herb healers would not have achieved their eminence in primitive societies had their remedies been totally worthless.

Here was an opportunity to advance science—and myself. Aunt Jennie knew that lithium salts were effective in mania. How did she get her powder? What else did she know?

I wasn't dishonest with her. She was too clever not to see through any

dissembling I could try. I told her straightforwardly, "Aunt Jennie, may you live and be well, but accidents happen to all of us, like with my neighbor who was run over by a car. Who is going to carry on after you're gone? Who is going to help these poor people who come to you? I want to become your pupil. You teach me what you know so that your wisdom won't be lost with you."

Aunt Jennie was flattered. "You want an old woman like me to teach you? And you went to a university?"

"Some things we don't learn in school. Some things we learn from people like you." And I told her of how quinine was developed from cinchona and of how right now doctors at the National Cancer Institute were investigating a plant from Guatemala that the natives there used to cure cancer.

Aunt Jennie shook her head in amazement. "Is that so? Big doctors in Washington listen to people like me? A blessing on Columbus!" She got excited. "I can tell you how to make a pill that only one will bring on a woman's time, and a powder for weak blood, and another for lunatics, and a medicine to make boys into men, and one to make barren women bear, and another to straighten crooked bones, and another to stop hair from getting gray, and another for a bad cough, and another for swelling of the feet, and salves for all kinds of sores, and—"

I held up my hand. "One at a time, Aunt Jennie, one at a time!

Let's start with the powder for lunatics." I figured that would be a touchstone. If she'd made the lithium salicylate by chance, then her folk knowledge would be worthless to me, but if she knew what she was doing, well. . . .

"Come." She unlocked the door to the third room. Shelves filled with jars were on the far wall. On the right was a large table on which lay cigar boxes and piles of drying herbs, flowers, and grasses. On the left was a heap of what appeared to be a crystalline gravel. The odor in the room was a mixture of aromatics, decay, must, and dust. Near the door were several large earthenware crocks. Aunt Jennie lifted the lid off one of them. I smelled vinegar. "That's where I age my gold and silver."

Woe is me! I thought to myself. I'm wasting my time. Gold doesn't age or combine with acetic acid, and silver acetate can't be prepared by pickling.

Aunt Jennie picked up a handful of the glittering coarse stones. "Now I'll show you how I make the powder." In the kitchen she had me pound the stones with a brass pestle in a mortar, the kind we have as a showpiece at home. She went back into the little room and returned with two bottles clearly labeled, one OIL OF WINTERGREEN and the other OIL OF VITRIOL. I kept a straight face. My herb doctor was an amateur chemist!

She poured the now fine powder into a glass pie plate and added the

sulfuric acid slowly, stirring it into the powder with a glass rod. She shook up her stove and carefully lowered the plate onto the red-hot coals. "Now I say the words." She muttered some garbled Hebrew for a few minutes. She lifted out the pie plate with two pairs of tongs and set it at the back of the stove. She covered her eyes and repeated the incantation. She had a gallon jug of spring water under the sink. From it she poured a glassful and slowly, very slowly, dropped the water on the plate. The drops sizzled and danced, but soon the plate was cool enough for her to bring back to the table. From a cupboard drawer she took a linen handkerchief, fitted it into another glass, and poured the cloudy liquid from the plate into it. "Linen it must be, not cotton," she warned me. "I forgot to tell you the prayer was the one for bedtime." The crude filtration over, there was left not quite an ounce of an almost clear liquid in the glass. She added a few drops of the oil of wintergreen and a teaspoonful of milk and then set the glass far back on the coolest part of the stove. "Now it sits a day, a night, and a day before all the water goes away and the powder is left. I'll save this for you when you come again." I asked her if I could have some of the stones. "Why not? You can practice making the powder."

I had the stones analyzed and got a surprise. They were specimens of amblygonite, a compound phosphate rock bearing iron, aluminum, and lithium. I looked up the literature on

the preparation of lithium salts, and sure enough!—Aunt Jennie had followed a standard procedure. But there was no amblygonite, according to the geologists, in this part of the country.

You have no idea how long it took me to get the details from Aunt Jennie with all her irrelevant remarks and side comments. The amblygonite was brought to her by Anton Kiss, "a Gentile, but a fine man," from a quarry pit near the Passaic River. (The geologists didn't know everything, it seems.) Kiss brought a load whenever he came for his tonic. I saw him once, a strapping Magyar with a black handle-bar mustache, hale and hearty at seventy-nine. The oil of vitriol and the oil of wintergreen were supplied by Levine the druggist, still active in his store at eighty-one and a patron of Aunt Jennie's.

Of course, the incantations were meaningless in the preparation of lithium salicylate. Aunt Jennie thought they were necessary, and I didn't dare suggest they weren't. She was not rigid, however, about her apparatus. She used Pyrex and Corning ware, I discovered, as a modern advance over her old utensils.

Lithium for mania was interesting but of no moment to me. What was the use of rediscovering America? Now what I wanted to know was what was in Aunt Jennie's other medications. What did she have that, sans mysticism, would benefit mankind—and me?

Disappointment after disappoint-

ment. The medicine for straightening crooked bones was nonsense, merely a calcium mixture. She had three salves for skin ulcers: one was common zinc oxide in a rendered chicken-fat base; one was bread mold, the penicillin being suspended in clarified butter; one was made up of a watery suspension of gold shaved from the milled coins, a poor substitute for the gold-leaf treatment reported in the medical literature. The potion for dropsy was pounded foxglove mixed with cherry brandy, a novel and uneconomical way to prepare tincture of digitalis.

I've omitted all Aunt Jennie's mumbo jumbo: one salve had to be made only on a dark night, another at dawn, and the digitalis had to take ten days, each day stirred with a silver spoon, *mazel tov* being said ten times. I pretended to copy down the charms. Aunt Jennie looked at my notebook and marveled. "And even in English you can write the sacred tongue? Such wonders in America!"

I had to go slowly. I was dependent on Aunt Jennie's whims. I could neither cut short her reminiscences nor ask her for specific medications. Anne, my wife, complained that I was away from home too much. I missed playing with my boy. But I was willing to make sacrifices. I was certain that sooner or later amidst all the magical charms I'd find something spectacular.

One evening when I came, Aunt Jennie handed me a chopping knife and a wooden bowl. "Here. Chop. Chop even finer than for gefilte

fish." She had ready a pile of salted meat. "Lazar the butcher brought me a fresh supply. I'll trim the meat and you'll chop it. We're going to make some new medicines."

I discovered why she lived so near to the slaughterhouses. Aunt Jennie made endocrine preparations: estrogens from minced ovaries soaked in almond extract; androgens from testes marinated in a mixture of roasted cattails (the plant type, not the animal), oil, garlic, and vinegar; desiccated thyroid from calves' thyroids blended with cinnamon and chopped cabbage leaves and dried in the oven. Her famed remedy for anemia was, as I'd expected, liver extract. Beef liver ("from pigs is better but pigs are not kosher") finely ground with kidneys and spleen, saturated with cherry brandy, evaporated in the sun, and then pounded in the mortar and pestle to a coarse powder. What good was all that to me?

One more try, I resolved, and then I'd give up the whole silly project. I got Aunt Jennie to give me the recipe for her abortifacient. That was very complicated. "Only from bulls can this be made and you need to have an expert butcher, not a plain slaughterer. He must cut out for you the bladder, the testicles, and all the parts around. Before, you had to make the pill the same day you got the parts but now, with freezers, you can keep them until you've got time. Grind everything in a meat grinder. Stir in a few drops of cherry brandy at a time and recite these three



psalms."—and King David would turn over in his grave if he heard what Aunt Jennie called psalms—"and then throw in the pot a silver dollar. Wait until night, then take out the silver and rub it on this hand grindstone until the stone turns gray from the silver. Then put the grindstone in the pot and let it stand off the stove until it's cool. . . ." A few more complicated, weird steps and "what's left looks like glue, only black, and you mix it with dough to make a pill."

I had a sinking suspicion that I knew what Aunt Jennie made "to bring a woman around." I took one of the pills for analysis. I was right. Prostaglandin B, now in commercial production by a more rational method.

There was no question but that Aunt Jennie's remedies were effective. There was equally no question but that they were already well known and already preparable without voodoo and in less time. Aunt Jennie was a cook-book pharmacologist using materials without knowledge of the rationale for their use. The silver was bactericidal, for example, and the cherry brandy a mode of alcohol extraction, but all the mumbling and chanting was nonsense, totally unscientific. Modern chemistry had anticipated the crude formulas she had given me.

I went to see her for what I thought was the last time, bringing her a bottle of sweet wine as a gift. She insisted on having a glass with me and became garrulous. "The next

thing we'll make is the medicine for gray hair, the one Tsilli, your great-grandma takes. I take it myself and see—my hair is as brown as the day I landed in America."

Fool that I was! I suddenly realized that Aunt Jennie's tonic was what I'd been looking for all the time. Anything that would prevent gray hair would make me a fortune. Gray hair was commoner than anemia or mania or unwanted pregnancies. The cosmetic industry was enormous. And Aunt Jennie's tonic was certainly effective. All the old men and women I knew of who took the tonic had not a gray hair in their heads.

"Let's start," I said enthusiastically.

She patted my hand. "Don't be in a hurry. We have to wait until Thursday for the new moon. Meanwhile I'll give you a little bottle you can test, like you say you do where you work." She handed me the familiar one-ounce bottle. "Only don't waste it. It's too hard to make. And don't take any yourself. You don't need it."

I had no intention of taking any although I knew great-grandma swallowed it with impunity. When I got home, I had an idea. Scotty, our Airedale, was thirteen years old, sluggish, his black and tan hair totally gray, cataracts filming his eyes; I knew his end was near but sentiment kept me from bringing him to the vet's to be put to sleep. I decided to see if the tonic was effective only in humans. I held

Scotty's jaws apart and gave him a tablespoonful.

That was Sunday. On Tuesday Anne said, "Look at Scotty. He's actually getting frisky again." He was. He no longer lay apathetically near the radiator but roamed about the house sniffing and growling. He looked dirty, but I saw that the color was due to the darkening of the hair near the skin. On Wednesday I thought I noted an improvement in his vision. I got excited. I had him shorn. I gave him another tablespoonful of the tonic, all I had left. I had begun the analysis of the rest in my laboratory.

I was at Aunt Jennie's just before sunset on Thursday. I helped her clean up her supper dishes and set up her apparatus. And I made very careful notes.

She had a pile of meat she had taken from the freezer earlier. The meat was well thawed out, soft and mushy. She stripped a liver and three spleens of their outer membranes, chopped them finely, added dill and saffron, and covered the mixture with cherry brandy. She took other organs; among which I recognized only sweetbreads and brains, ground them up, added seven teaspoonsful of almond extract ("no more, no less"), four or five varied spices, and put them into a separate iron pot. She rubbed a gold piece with a lump of charcoal and then on a coarse grater. Fine shavings of the soft metal fell into the wooden bowl under the grater. "Enough to cover two thumbnails," she said. "You

could use more but it's a waste." She stirred the shaved gold into the first pot, added more cherry brandy, and again stirred vigorously. "First comes the prayer, *Boruch Hai Ha-Olamim*; next, the *Shomer*; next, the *Shemai* . . ." I didn't dare interrupt her by telling that I knew no Hebrew prayers, that I was an unbeliever. "All ten you must say while you're stirring." She looked out the window. "Aha! There's the new moon. We're lucky there are no clouds. Otherwise we'd have to wait a whole day. Now the *Rosh Chodesh*, and we're ready." She mumbled the prayer to be said on seeing a new moon, and washed her hands afterwards. "Also never forget the prayer for the washing of the hands." She combined the contents of the two pots. "Stir only with a wooden spoon." Then she took a very large linen napkin and ladled the mixture into it bit by bit over another wooden bowl. She tied the four corners of the napkin together and expressed the juice. "You're stronger. You squeeze." The filtering finished with about eight ounces of a dark brown alcoholic liquid, which she put into a pottery jug with a lump of charcoal. "Done! Now we have to wait until only half the juice is left. In Hungary we used to put it in a dark cool place and cover it with a heavy sheepskin, but here in America are iceboxes; so I just cover it with a clean rag and keep it in the icebox. It takes about ten days, sometimes two weeks, and the tonic is ready. Then you put it in a small

bottle with a tight top and don't let air get at it until you're ready to use it. It can stay like that for a year on a shelf in the pantry."

Lots of mumbo jumbo, you see, with a little science: charcoal for clarification, evaporation of the alcohol, avoidance of air to prevent contamination, and the use of animal organs of high cellular content. But, and a big but, the tonic was effective. I cajoled another ounce from Aunt Jennie for more extensive analysis.

I got nowhere fast. The tonic was rich in sulfur, potassium, and phosphorus. The organic chains were complex unstable amides and amines. The proteins did not correspond to those that normally would be present in the organs Aunt Jennie used. I needed more data. I waited impatiently for the next new moon.

Meanwhile, Scotty's eyes began to clear; his hair grew back black and tan; he frolicked like a young pup. My wife and son were delighted with him. So was I. I brought him to the vet for a checkup. The vet wouldn't believe he was thirteen years old. He shrugged. "Well, Dr. Ross, I suppose if Moses could live to be a hundred and twenty, maybe your dog will live to be twenty." All he found was atrophy of the testicles, not abnormal at Scotty's age.

At the next new moon I asked Aunt Jennie for pieces of the organs she used. I painfully transliterated the prayers she chanted. She chuckled. "You know, my child, it took me too a long time to learn. I kept mixing up the prayers, putting

the third before the first, and the fifth before the second, until I thought my brains would cook before I got them right. I couldn't write like you. With you it'll be easier."

It wasn't. I found that, besides the liver, brains, pancreas, and spleens I'd recognized, Aunt Jennie used adrenals and calves' thymus. Gold, naturally, was not in the final mixture; if it had any effect, it could only have been as a catalyst, which was highly unlikely. The proteins were again unclassifiable.

I worked on the tonic on my own time. I could have asked for advice and help from my superiors, but I wanted to keep the secret to myself. I dreamed of getting the Nobel Prize, once I had patented the basic ingredient and published my findings, as the man who would go down in history as the discoverer of the veritable elixir of youth.

For I knew that the tonic not only restored gray hair to its normal color. It had made Scotty young again. It kept my great-grandmother and my great-uncles and my grandfather hale and hearty at their advanced ages. It kept Lazar the butcher and Levine the druggist and Lawyer Greenbaum and Mrs. Schoenfeld and Mr. Gottfried and Zoltan Kovacs, the family handyman, from becoming senile. It was why Aunt Jennie had so many followers.

I tried everything in the books, but I could come to no definitive analysis. I started the other way around. I made alcoholic extracts of

the various organs and combined them in several ways. No good. My experiments with aged dogs got nowhere. Only Aunt Jennie's tonic, prepared her own way, worked on them.

Aunt Jennie herself was no help to me. Why cherry brandy? Why not plum brandy? "Cherry brandy. That's all you can use." She let herself be persuaded once to use a fine French brandy. The resultant tonic looked and smelled different and was completely worthless. Why almond extract? "You don't need almond extract. The wise man, my teacher, squeezed from out of ground up kernels of peaches a kind of oil, but I found here in the stores you can buy the same thing, only from almonds, so why go through the forest when you can float down the river?" Why the gold, the iron pots, the wooden spoon? "You'll make me crazy yet with your questions. That's the way it was, that's the way it is, and that's the way it will be."

She was pleased, however, that I was such an earnest pupil. At great-grandma's funeral she told the family, "Lawyer Greenbaum wrote out a paper so Albert can have all my medicines when I'm gone." She was unaware that her tonic conferred longevity on its takers. She attributed her and her patrons' old age to the will of God.

I decided to systematize and rationalize Aunt Jennie's technique. I set up a laboratory in our basement and made contact with an abattoir to

provide me with the necessary organs.

And then Aunt Jennie was killed. I was her heir. There was nothing she had that I wanted except her tonic. Of that she had exactly thirteen one-ounce bottles. I put them into a little house safe that I bought. They were my ace in the hole for my own use in case I couldn't duplicate the tonic.

I know that what I did then sounds callous. I used Aunt Jennie's patrons (including my own family) as experimental animals. I was driven by my ambition. I made variations and substitutions in preparing the tonic, trying to simplify the procedure and get at the basic substance.

New moons were ridiculous, a superstitious touch; the tonic should be preparable at any time. The prayers (taught me by a pious friend) were also unnecessary; they were purely a timing mechanism to denote the completion of the extractive process. My first batch of tonic made without the hocus-pocus was effective in dogs and humans.

I began to omit one ingredient at a time. The gold went first. The tonic seemed to be the same, but wasn't. It took me a month before I realized that my grandfather's death from pneumonia following a broken hip was not adventitious. Scotty's eyes began to film over and his hair turned gray. I tried substituting various gold salts. No go. My great-uncle Bernard failed rapidly. "Listen, what can you expect?" said

my cousins. "He's seventy-five." Mrs. Schoenfeld died. So did Lawyer Greenbaum. I tried colloidal gold. Success! But now Scotty was dead, too.

Now I omitted first the dill and then the saffron. The absence of dill made no difference, but the tonic made without saffron had no value. The proportions of the four or five spices in the second pot could not be varied and all had to be used. I discovered that calves' thymus was essential; the source of the other organs (swine, beef, lamb) was unimportant. Zoltan Kovacs died of debility; I read Anton Kiss's obituary. I omitted first the liver, then the brains, and so on down the list. Brains, adrenals, thymus, and spleen were all I needed. Mr. Gottfried died of old age, and so did one by one my great-uncles. My experiments, you see, had to be confirmed by biological testing, and evidently the effects of the tonic wore off in a week.

At last I was ready to return to the analytic phase of my investigation. There were many tantalizing clues in the fabulous tonic. The inhibition of aging was probably not its only function. Take the spleen, for instance. The spleen was involved in immunological processes; maybe the tonic would solve the problem of tissue rejection in transplants. And saffron came from a crocus related to the variety which yields colchicine, a compound with strong chromosomal effects. And the adrenals were significant endocrine glands.

I'd had a series of colds. I decided to try the effect of the tonic to build up my resistance. I took a tablespoonful.

The next day I was full of pep. My mind seemed to be working at top speed. I developed a new procedure for the synthesis of thiouracil and ran the preliminary tests. A couple of days later I was able to show my boss, Dr. Heinrichs, the result. He was enthusiastic. He shook my hand. He said I was brilliant. He assigned me to his stalled steroid project.

To make sure I'd live up to his expectations, that night I took another tablespoonful of the tonic. I slept like a baby, woke up singing, and realized that the tonic was a better stimulant than any of the amphetamines.

In twenty-four hours I solved Dr. Heinrichs' problem. He took me to see Dr. Kessel, the president, and demanded that I get a new contract with a substantial raise lest I be lured away by another company.

From then on I took no chances. Every week I took a dose of Aunt Jennie's tonic. I put away my notebooks for my own experiments. I could make the tonic anytime now, and I had lots of time before me. I calculated that if my present acuity and originality of invention continued at the same rate, in a couple of years I'd be able to set my own terms as a pharmacologist and have my own laboratory with a staff of Ph.D.s to help in the analysis of the tonic.

I was amazed at my own successes. I had brilliant intuitions and pragmatic ability. Every project was a challenging game. I got a bonus at the end of three months and another six months later.

The first intimation I had of trouble was with my sex life. My libido was definitely lessened. I attributed that to my working so hard and to fatigue. I was peppy all day long, but by eight o'clock I was ready for sleep. Then suddenly I became impotent. That upset me. I went to a urologist. He found nothing wrong with me and said the impotence was psychogenic.

I didn't believe him. I suspected the tonic was the cause. I didn't take it for a month. No change, except that I lost the sparkle and initiative and flashes of genius that had made my work so outstanding. As soon as I started the tonic again, my work improved.

Not my home life. To the silent reproach caused by my impotence was now added open marital discord. Anne and I quarreled constantly. She accused me of extravagance, of flaring up over trivialities, of lack of interest in my son. She was right, not that I cared to correct myself. I was having too much fun. I was taking an active interest in sports as a participant, not as a spectator. I spent hours in the gym, on the tennis courts, and joined a Celtic soccer team across the river.

I lost my job because of my sports activities. Dr. Heinrichs cautioned me one day: "Albert, you're the head of

a section now, but Dr. Kessel is very dissatisfied with the work going on there now. Not enough supervision, too much camaraderie, too many practical jokes that could turn out to be dangerous. And you've been taking too much time off." I gave him the Bronx cheer and resigned.

When I told Anne what I'd done, she burst into tears. "You ought to see a psychiatrist, Albert. You're not the same man I married."

She was wrong. I was the same. She wasn't. She had grown older. I hadn't, thanks to Aunt Jennie's tonic.

She left me two weeks later, saying she couldn't stand my irresponsibility and my childish rages. I wasn't affected by her departure. The way I saw it was—marriage was a convenient way of having sex, and sex was no longer a concern of mine. I had no doubt that if I stopped the tonic long enough my sex urge would return, but between incredible longevity and brief ecstasies, who wouldn't choose long life?

About that time I noted that my scrotal sac was shrinking, my testicles were smaller, and my axillary hair was thinning out. I went back to shaving only twice a week. But my belly became flat and hard, and my muscles developed tremendously.

I became a boxer. Amateur, of course. But willing to pick a fight with a casual stranger and knock him out with a quick blow to the jaw, like in the movies. I became known to the police as a brawler.

I skipped support for my wife and son for a few months. Her brother, an attorney, hailed me into court and wanted me declared incompetent so that Anne could be appointed my guardian and have full charge of whatever funds I had. The court-appointed psychiatrists said I was not crazy, merely immature.

My money was running low. I made up a batch of the tonic and put an ad in a man's magazine: **GRAY HAIR RESTORED TO NORMAL WITHOUT DYE.** The response was fantastic. I sold two quarts (all I had) at ten dollars an ounce, and then made several gallons.

That one ad was enough. I had a steady clientele and they told their friends. I raised the price to twenty dollars and then to twenty-five and didn't lose a customer. I had grandiose ideas of taking over a factory to produce the tonic, of a big advertising campaign, and of being on Easy Street in no time without sweat.

I ran afoul of the Food and Drug Administration. Their chemists reported that the tonic was made up of organic extracts that could not possibly have an effect on gray hair. I was ordered to cease its distribution. I took a trip to Washington, showed my credentials as a pharmacologist, carried on and shouted at those stupid bureaucrats, demanded that they experiment with the tonic on aged animals, and made such a scene that I ended up in a hospital under observation with a diagnosis of possible paranoid psychosis.

I probably would have been released in two weeks had I not been so frightened at the prospect of being without the tonic. I raged and fought with the doctors and was formally committed to an insane asylum. Anne came down and had me transferred to an institution in New Jersey.

She refused to sign for my temporary release. "Get some treatment first, Albert. I'm going to wait until all those people who keep sending money for the hair tonic get discouraged. I'm kept busy returning the checks and cash."

The doctors made me furious. "A classic well-constructed paranoid delusion," they said. "Belief in the possession of an elixir of life is not uncommon."

All my pleadings were in vain. The doctors, smug as only doctors can be, paid no attention when I said that I was not a crackpot, that I really had a formula that prolonged life. I lost control of myself. I hit out at the attendants and refused to take the sedatives prescribed for me. The doctors had an answer for that—electroshock therapy.

After a dozen shocks I had enough sense left to recognize that I was being an idiot. The shock treatments not only left me sore physically but they also induced amnesia. I resigned myself to being a good calm patient. I stopped talking about the tonic. I made a silent resolve to reform. As soon as I got out, I'd go back to my original plan of analyzing the tonic and publishing

my findings. I now understood why Aunt Jennie had said that the tonic was not for me but only for older men and women. Its longevity effect came presumably after sex hormone production was at a low level. Before that time it was a stimulant, actually a true rejuvenator, but juvenility was a menace, not a help, to normal adults. It had been so to me, at least, judging from the way I'd been acting.

Most of the amnesia disappeared fairly rapidly, but there were a number of things I couldn't recall. I didn't worry too much about that. Chemical formulas, names of drugs, salting-out procedures—I could find them in textbooks any time. I had also forgotten some parts of Aunt Jennie's recipe for the tonic, but fortunately the rationalized version was safely in my notebooks in the desk in the laboratory at home.

Anne came to see me regularly. She was pleased at my so-called improvement. "I took the liberty of speaking to Dr. Heinrichs," she said, "and he assured me your old job is open for you." I nodded and said nothing about the tonic.

The day I was discharged she came for me. "I have a surprise for

you. I didn't know how long you'd be in that place: so I sold the house and took an apartment. It's very nice. You'll like it."

A chill went through me. "What did you do with the laboratory setup?" I asked.

"I put everything in storage," she replied. "All the apparatus, I mean. I threw out a lot of junk you had there, though."

Correct. Along with the old insurance policies and invoices for chemicals, she'd thrown out my notebooks.

I'm working again as a junior pharmacologist. About once a month I make up a batch of Aunt Jennie's tonic, but it's no good. It has no effect on aged dogs. There's something I just can't recall. Those four or five, maybe six, spices she added to the second pot. So far I've tried dozens of spices and herbs. No luck.

But I'm not discouraged. I have hope. Just last week I read about cyanins being used to stimulate the growth of tissue cultures in vitro. And cyanins are present in almonds. Any day now I'm sure to remember those spices.