

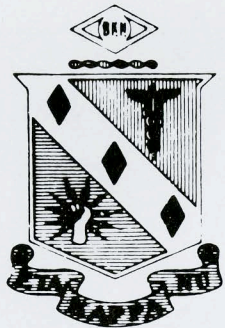


**BRIDGE**

**Eta Kappa Nu**

***An Educational Journal***





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The BRIDGE is published by the Eta Kappa Nu Association, an electrical engineering honor society. Eta Kappa Nu was founded at the University of Illinois, Urbana, October 28, 1904, that those in the profession of electrical engineering, who, by their attainments in college or in practice, have manifested a deep interest and marked ability in their chosen life work, may be brought into closer union so as to foster a spirit of liberal culture in the engineering colleges and to mark in an outstanding manner those who, as students in electrical engineering, have conferred honor on their Alma Maters by distinguished scholarship activities, leadership and exemplary character and to help these students progress by association with alumni who have attained prominence.

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# ROGER I. WILKINSON OUTSTANDING YOUNG EE AWARD

by  
**Irving Engelson**  
Chairman, Award Organization Committee

With the presentation of this year's awards in the Eta Kappa Nu Young Electrical Engineer of the Year recognition's program, we are beginning the second half-century of this prestigious award. Last year's celebration, in Philadelphia, of the Golden Anniversary of the award was a significant milestone in Eta Kappa Nu's recognition program. As many attendees during the 50th Anniversary celebration attested, if the importance of an award is measured by the achievement of past winners, then this award is clearly among one of the most prestigious. We thus are celebrating for the 51st time, the recognition of young electrical engineers with the confidence that the process that began over one-half century ago is one which withstood well the test of time. In a subsequent *Bridge* article we will report on this year's awards recognition banquet. This article is devoted to announcing the names of the young electrical engineers who were honored in 1986 for their outstanding achievements.

Michael Keith is the Outstanding Young Electrical Engineer of 1986. The award was presented to him at the 51st Anniversary Eta Kappa Nu Banquet in New York City on April 6, 1987. The recognition is given annually to young electrical engineering graduates for meritorious service in the interests of their fellow men as well as for outstanding achievements in their chosen profession. At the same ceremony, Lauren A. Christopher was awarded Honorable Mention for 1986.

Mr. Keith is a member of the Technical Staff at the RCA David Sarnoff Research Center, Princeton, New Jersey. He was named Outstanding Engineer for his "oustanding contributions to the fields of computers in the arts, teletext systems, and in church and cultural activities."

Ms. Christopher is a Group Head of Consumer Electronics IC Research at the RCA David Sarnoff Research Center in Princeton, New Jersey. She received her Honorable Mention for her "contributions and leadership in digital integrated circuit design and participation in civic and cultural activities."

Three other engineers were recognized as Finalists:

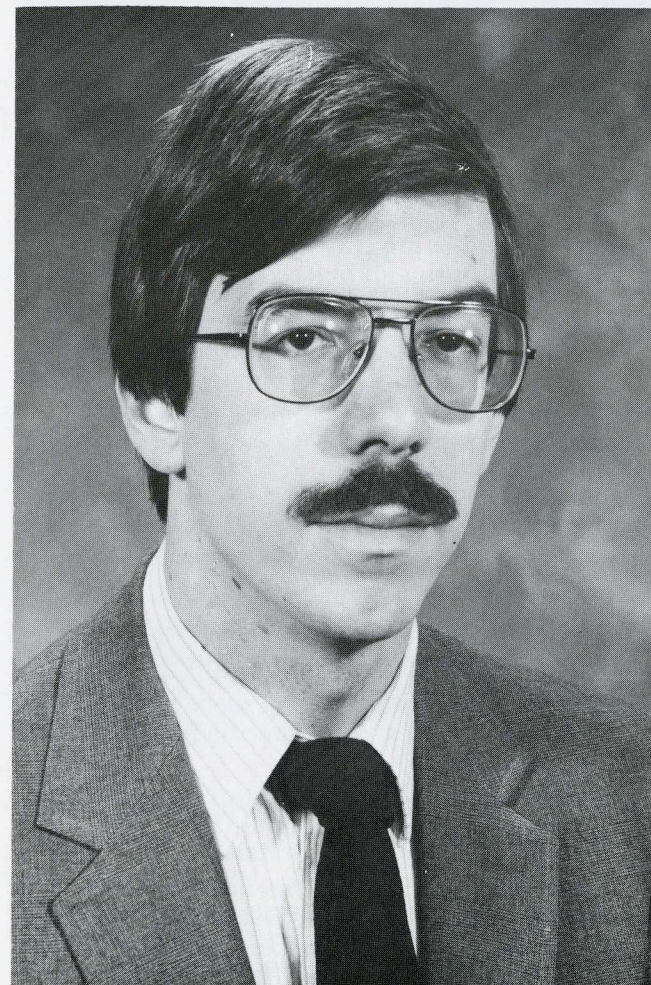
- Russell T. Fling, RCA Corporation, Indianapolis, Indiana;
- Gary Gendel, RCA Microelectronics Center, Somerville, New Jersey;
- Steven D. Krueger, Texas Instruments Inc., Dallas, Texas.

The award winners were honored for their contributions to electrical engineering and for their contributions to society at large. Mr. Keith was nominated by Mr. William M. Webster, Vice President,

RCA David Sarnoff Research Center, Princeton, New Jersey. Ms. Christopher was nominated by Dr. James J. Tietjen, Vice President, RCA David Sarnoff Research Center, Princeton, New Jersey.

The Eta Kappa Nu recognition is awarded to emphasize among electrical engineers that their service to mankind is manifested not only by achievements in purely technical areas but in a variety of other ways as well. Eta Kappa Nu holds that an education based upon the acquisition of technical knowledge and the development of analytical and logical thinking is a prerequisite to achievement in many lines of endeavor.

**Michael Keith**



**Lauren Christopher**







**1986 JURY OF AWARD—Seated (l to r)—Joanne L. Waite, Irving Engelson, Alan Lefkow, Henry L. Bachman. Standing (l to r)—Edgar A. Sack, Edward M. Davis, Jr.**

The Jury of Award usually consists of prominent educators, industrialists, or professional leaders. In 1986, the jurors were:

Mr. Henry L. Bachman, IEEE President-Elect and Vice President, Engineering, Hazeltine Corporation;

Dr. Edward M. Davis, Jr., IBM Vice President and President, Data Systems Division, IBM Corporation;

Dr. Irving Engelson, Staff Director, IEEE Technical Activities;

Mr. Alan Lefkow, President, Eta Kappa Nu, Singer-Kearfott Division;

Dr. Edgar A. Sack, President, Zilog, Inc.;

Dr. Joanne L. Waite, Past President, Eta Kappa Nu, Academic Technology Services, University of Colorado, Boulder.

Nominations for the award are solicited each year through the Eta Kappa Nu Award Organization Committee. Nominations may be made: by any member, or group of members, of Eta Kappa Nu; by any Section or Society of the Institute of Electrical

and Electronics Engineers, Inc.; by the head of the EE Department of any U.S. college or university; or by other individuals or groups, who in the opinion of the Award Organization Committee are properly qualified to make nominations.

The nominations for the 1987 awards should be submitted to the Chairman of the Award Organization Committee, or to the Executive Secretary of Eta Kappa Nu, by August 3, 1987. An eligible candidate is one who:

- has an electrical engineering degree (BS, MS, or PhD) from a recognized U.S. engineering school;
- will have been graduated not more than 10 years as of May 1, 1987 from a specified baccalaureate program; and
- will not yet have reached his/her 35th birthday as of May 1, 1987.

Awards are based upon (1) the candidate's achievements of note in his or her chosen work, including inventions of devices or circuits, improvements in analyses, discovery of important facts or relationships,

development of new methods, exceptional results in teaching, outstanding industrial management, or direction of research and development; (2) the candidate's service to community, state, or nation, such as activity in philanthropic, religious, charitable, or social enterprises, leadership in youth organizations, or engagement in civic or political affairs; (3) the candidate's cultural and aesthetic development, such as work done in the fine arts, architecture or the dramatic arts. Studies in history, economics, or politics are also highly valued as well as any other noteworthy accomplishments including participation in professional societies and other organizations.

The Award Organization Committee members are: Irving Engelson, Staff Director, Technical Activities, The Institute of Electrical and Electronics Engi-

neers, Inc. (Chairman); Ralph J. Preiss, IBM Corporation (Vice Chairman/Secretary); Clarence A. Baldwin, Westinghouse Electric Corporation; Donald Christiansen, IEEE Spectrum; James D'Arcy, RCA Laboratories; Larry Dwon, Consultant (formerly American Electric Power Service Corp.); Anthony F. Gabrielle, Gulf State Utilities; Quayne G. Gennaro, Bell Atlantic; Willard B. Groth, IBM Corporation; Albert J. F. Keri, American Electric Power Service Corporation; Robert W. Lucky, AT&T Bell Laboratories; Stephen A. Mallard, Public Service Electric & Gas Company; George A. Mangiero, Brooklyn Polytechnic Institute; William E. Murray, Douglas Aircraft Company; Berthold Sheffield, RCA Corporation (retired); Joseph J. Strano, New Jersey Institute of Technology; and Lawrence D. Wechsler, General Electric Company.

## Electrical Engineering at U.S.C.

Electrical Engineering at the University of Southern California is ranked 5th in the country for its graduate programs. Virtually the entire range of topics central to modern electrical engineering practice and theory is covered by the course work and research offered. Major concentrations of faculty research interests have been organized into interactive centers and institutes within the department. EE-Systems includes the areas of: communications, computer engineering, controls, signal and image processing and robotics. EE-Electrophysics includes the areas of: lasers, microelectronics, electromagnetics, power engineering, photonics and quantum electronics. In 1985-86 the total research budget exceeded \$7,000,000 and over 300 full and part-time Ph.D. students were conducting advanced studies.

Several members of the faculty are members of the National Academies of Engineering and Science. In addition, a very large number of the faculty are Fellows of the Institute of Electrical and Electronics Engineers and the Optical Society of America. The faculty's international reputation is evidenced by the numerous awards and the many invitations they receive to present lectures at major conferences, industry labs and universities. They work closely with both graduate and undergraduate students in conducting their research and teaching responsibilities.

The students in EE at USC are among the best in the country. This is due to the department's outstanding reputation for teaching and research and to the impressive successes of past graduates now in academic, industrial and governmental careers. Several EE students are in the very highest rank of U.S. graduate students as evidenced by their success

in national competitions for fellowships. The combination of such high caliber students and an outstanding research-oriented faculty means that before receiving a Ph.D. a student will have had the opportunity to publish papers in refereed journals and present his or her work at major conferences. This is the result of participating in the entire research process from conception of the problem, through the work itself, to the crucial stage of communicating the results to the engineering community.

A wide variety of university and departmental fellowship support is available in addition to externally sponsored grants. University Merit Fellowships, which number only 10 per year, are granted for three years and include a stipend of nearly \$12,000 and full tuition remission. EE students routinely win 2 to 3 of these. Industrially sponsored fellowships enhance the possibilities for significant financial assistance. The department has instituted a program of offering enhancements to the financial package given to outstanding U.S. citizens during their first year of graduate school toward a Ph.D. Research Assistantships with individual faculty members provide support while conducting graduate research studies, and Teaching Assistantships provide hands-on classroom experience for those students interested in teaching and having an excellent command of the English language.

We invite you to join USC School of Engineering—take part in shaping the 21st century! For additional information please write to: USC, Department of Electrical Engineering-Systems (or Electrophysics), SAL 300, University Park, Los Angeles, CA 90089-0781 Code A.



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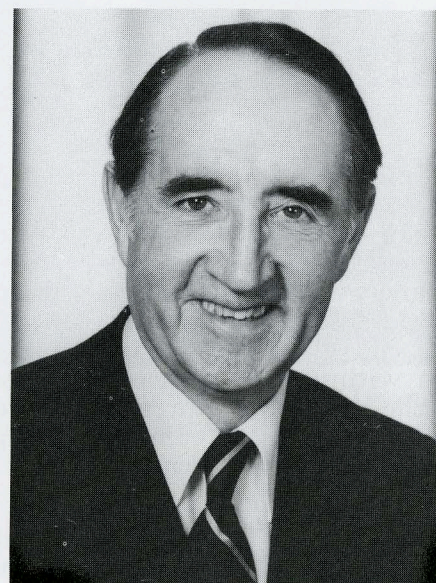
# Moscow Express

The strange events of this story are true and still vivid after all these years, although I have had to fall back on my diary for exact dates and times. In July 1955, the temperature of the Cold War was low and Eastern Bloc countries were almost totally isolated from the West by the Iron Curtain, part of which was the notorious Berlin Wall. In spite of the icy wind from the Soviet Union, several Eastern countries in particular Poland, yearned to develop their traditional trade relations with the West.

With a certain feeling of apprehension, I hurriedly packed the suitcase in my London flat to set off on an urgent mission to meet my company's Eastern marketing consultant in Poznan. The fact was that the Poles were on the verge of buying several costly television film scanners, which I had helped to design. I had no knowledge of Polish or Russian. The Commander had Polish contacts and was an expert in Russian. On the other hand, he knew little or nothing about film scanners. My concern over the trip was heightened when I learnt that due to the short notice and heavy booking before the Fair, my company EMI, had found it impossible to obtain a seat for me on any flight into Poland. The only possibility was to fly to Berlin, cross into the Soviet Sector, and take a train from there to Poznan.

On a clear day descending to Berlin's Tempelhof Airport, one can easily see The Wall snaking it's way north to south across the city. That day the Soviet Sector stretching far to the East and looked drab and lifeless. Fortunately, I was no stranger to Berlin, having been with the British supporting forces at the Potsdam Peace Conference

by  
Ken McKee



**Kenneth M. McKee is British and was formerly a Senior Executive in the RCA International Headquarters in London.**

in July exactly ten years before. Looking down, I could not help wondering what lay in store for me behind that grim Wall.

The plane touched down in the late afternoon, and I was soon on my way to the Bristol-Kempinski in the British Sector, where a room had been reserved. Neither reliable information or train tickets to the East had been available back in London. So the following morning I decided to explore the situation locally in Berlin in the hope of catching an

afternoon train. Enquiries revealed that the few Polish trains either departed from Berlin or arrived at Poznan in the dead of night, or in the small hours of the morning. There was however, the Russian Moscow Express which left Berlin East at 4 pm and arrived in Poznan at 10.23 pm, eventually reaching Moscow the following afternoon. The hours seemed acceptable, so I bought a first class ticket. Before leaving, I was advised that any currency that I carried would be confiscated at the Polish border for seemingly worthless credit notes. To have to travel penniless, except for travellers cheques, struck me as more than just inconvenient.

On my return to the Kempinski, I approached the head porter who confided in me the trick for getting through the Checkpoint Charlie into the Soviet Sector. The essentials were an unmarked taxi pretending to be a private car, plus passport, and valid visas. Later that afternoon, the heavily armed guards at the Checkpoint disappeared with my passport for almost a quarter of an hour. It was a relief to have it handed back together with a return pass for the driver. We were waved through with my briefcase and suitcase unopened. On reaching Berlin East, the driver was delighted when I emptied my pockets of German coin into his eager hands. He seized my suitcase announcing "I, führer!" Fascinated, I meekly followed him up several flights of wide steps into the station concourse. He left me at the platform entrance, where the ticket collector indicated that I should head for the front of the train.

There it was, the mighty Berlin-Moscow Express extending the whole length of the long platform. I was not so pleased to see that the six end coaches were crammed with Russian troops in their drab khaki, black jackboots, and complete with rifles and packs. They spilled over the platform where here and there was a soldier with his German girlfriend locked in farewell embrace. On the train were other women whom I took to be wives. Next came a few second class coaches unoccupied by troops, and at the front end were three first class coaches with windows heavily curtained over. A stocky attendant in a well-worn uniform with a pleasant although typically Russian square face, asked to see my ticket. He then took my suitcase and we climbed up into a coach. Inside it was dark and somewhat forbidding. He showed me into a dim compartment with sleeping berths over the seats. It really looked like something out of a Victorian scrapbook with it's dark wood panelling, ornate brass fittings, plush furnishings and the all-pervading old world aroma. I could visualise a Soviet commissar sitting there, enigmatic and insisting on absolute seclusion.

Before the train started, I walked up and down the three coaches but could see no sign of a commissar or any other passenger for that matter. It appeared that I was the only first class passenger at this stage of the 1,200 mile journey to Moscow. The compartment was to be my upholstered cell for the next 6-7 hours, so I settled down pulling back the curtains to get some idea of the scene outside. The distance between Berlin and Poznan is 160 miles, making the average speed of the Express only 25 mph. It was going to be a lonely and wearisome journey without dining car or money to buy refreshments of any kind, but I was wrong.

As far as I could see, the attendant had virtually nothing to do. After we left the station he looked in to see me. This was my opportunity to try a dodge which ten years before had seen us past Russian sentries and into Hitler's Chancellory. I offered him a

cigarette from a packet of ordinary Players. His eyes lit up, "Ah, yah" he exclaimed reaching forward. I extended two more pointing to his breast pocket. An eager "Yah, yah" was the response. Touching my ear, how about one more for behind each ear? He grinned with obvious gratitude carefully slipping the cigarettes into his pocket as if they had been rare Havanna cigars. I knew that I had a friend.

The train crawled slowly through the dreary war-torn East Berlin suburbs until after about twenty minutes it ground to a halt at a station on the outskirts. I looked out and saw on the platform a dozen Russian soldiers walking up and down carrying submachine guns slung at the ready. A few minutes later an armed official followed by a soldier with a menacing machine gun walked into the compartment. The official stood over me demanding "Passport". I handed it over and started to open my suitcase, but there was no interest. The soldier was probing around and looking under seats for what could only have been bodies. They left with my passport which was for me an anxious half hour. Outside and inside the train was being worked over from end to end by all the soldiers. They were even clambering over the coaches to peep in the vents. Were they looking for spies, or perhaps dissidents or deserters? The armed official returned handing back my passport without comment. With no passport, I felt that I would have been seized, or possibly shot there and then.

For mile after mile the rolling East German countryside passed by. In two places I noticed an extensive area enclosed by high barbed wire fencing, and at each corner stood a sinister watch tower. At the top the face of a lone armed guard could just be seen peering over. I was dozing off when unexpectedly the attendant came in and sat down beside me. He spoke no English, but had quite a useful range of German words. Unfortunately, his were not always the same as those I knew, so we filled in with gestures and miming. His lack of language ability did give me confidence that he was not

KGB. I learnt his name was Igor, and that he lived with his wife and three young children in Moscow. We passed the time exchanging many other family and home details until the train pulled into Frankfurt am Oder on the Polish border.

Igor vanished to reappear in a few moments with an attractive blond in a smart green uniform wearing a cute beret and carrying a board. She smiled and asked politely in good English for my passport. After a brief inspection, she thanked me scribbling something on her board. Several more questions followed on my currency and the reason for my visit—more notes. Finally, she retired wishing me an enjoyable stay in Poland. What a contrast to the Iron Curtain treatment which I had received earlier! After the train had left Frankfurt, Igor surprised me by looking in and offering "Kaffee?" I pulled the lining from my trouser pocket to show I was penniless. It made no difference for he came back shortly with a very welcome and quite drinkable cup of hot coffee, conjured out of nowhere.

Things were looking up, but it was beginning to become dark and my main worry was to know when we reached Poznan. Polish stations were difficult to identify and the train was already behind schedule. When Igor came in next time, I pointed to him and then to me and said "Poznan". He appeared to get the message and nodded. Just to make sure, from 10 o'clock onwards every time we passed a town, I went to Igor and said "Poznan?" Each time he shook his head patiently. Just when I estimated that we should be near, the train slowed down, and I could see from a myriad of lights ahead that we were approaching a city. I hurried to Igor and again said "Poznan?" This time he hesitated but slowly shook his head. I returned to the compartment in total disbelief for we were now clearly passing through a major station with crowds of people lining the platforms. The train drifted through gradually gathering speed out into the suburbs again. I was convinced that we had



passed non-stop through Poznan. Helpless, I could see myself being carried off non-stop deep into the Soviet Union.

Suddenly the train slowed and stopped with a jerk. I glanced out and as before could only see the darkened countryside. To my astonishment, Igor rushed in and shouted "Poznan!" He grabbed down my suitcase and hustled me into the corridor. At the far end he opened the door, produced a short ladder, and helped me down on to the track outside. Next, he handed me down my suitcase, withdrew the ladder, and shut the door. Within a couple of minutes the train moved off down the track to vanish into the night. I looked about, but all I could see clearly around were the stars above and a few faraway twinkling lights from distant farms. My fears began to grow. Here I was stumbling along Poland's main railway with a suitcase in the dark. A trigger-happy guard would instantly take me for a saboteur or terrorist with a case full of explosives. The challenge would be in Polish and I would be quite incapable of explaining my presence in this god forsaken place. Remembering instructions that we had been given during the War, I decided the best course was to make for one of those remote farms and throw myself on the mercy of the peasant farmer and his family.

All at once I became aware of two figures walking towards me along the track. They emerged from the dark and came straight up to me. One said in clear English "Are you Mr. McKee?" In my utter amazement, I stood dumbfounded. When I found my voice, I replied "Yes! Who in the world are you?" "We come to take you to the Poznan Fair, please this way". With that he lifted my suitcase and started walking. In a daze, I followed them along the track for a couple hundred yards. There, parked against a platelayer's shack was a battered old Volkswagen. One of them ushered me into the rear seat, while the other took the wheel. We bumped over fields and down back lanes until we came to a main road, where I could again see the lights of Poznan in the distance.

"Was I glad to see you two" I remarked during the journey. "How on earth did you know my name, and that I was on the train?"

"The girl at the Polish frontier phone us" was the reply.

"Why didn't the Express stop at Poznan station?"

"There are two stations here, our station for Polish trains and one for Russian trains. You were on the Moscow train which only stops at the Russian station".

"But the Russian station is a ghost, it doesn't exist?"

He just shrugged and smiled mysteriously at his friend who was driving.

In next to no time we were in sight of the brilliantly lit Fair. We drove past the imposing entrance to a hotel a short distance away, where I found Commander Courtney was waiting to greet me. Some days later, we were awarded a substantial contract for film scanners from ELECTRIM, the Polish Purchasing Authority. The following week, I was able to secure a seat on a flight out of Poznan back to Berlin, and from there two further flights took me home to London.

Since 1955, I have often pondered on the mystery of the ghost station at Poznan. To this day, I can offer only two clues. It is well known that Soviet troops are not welcome in Poland. Secondly, whatever use is made of the ghost station, the people of Poznan would be unaware of it. The question then arises, are there Russian ghost stations near other cities in Poland and other countries of the Eastern block? The answer will probably never be known.

Dad, what is an actor?

An actor? My son, an actor is a man who can walk to the side of a stage, peer into the wings filled with theatrical props, dirt and dust, other actors, stagehands, old clothes, and other claptrap and say: What a lovely view there is from this window.

The late Senator Theodore Green, a Democrat from Rhode Island, perfected a technique for winning votes. While campaigning he would never tip waiters, cab drivers, etc. Instead he would tell them, "Be sure and vote Republican."

### "First Love"

I remember  
Meeting you  
In September  
'Sixty-two.  
We were eating,  
Both of us;  
And the meeting  
Happened thus:

Accidental,  
On the road;  
(Sentimental  
Episode).  
I was gushing,  
You were shy;  
You were blushing,  
So was I.

I was smitten,  
So were you;  
(All that's written  
Here is true).  
Any money?  
Not a bit.  
Rather funny,  
Wasn't it?  
Vows we plighted,  
Happy pair!  
How delighted  
People were!  
But your father,  
To be sure,  
Thought it rather  
Premature;  
And your mother,  
Strange to say,  
Was another  
In the way.

What a heaven  
Vanished then!  
(You were seven  
I was ten.)  
That was many  
Years ago—  
Don't let any-  
body know.

## A Visit To . . .

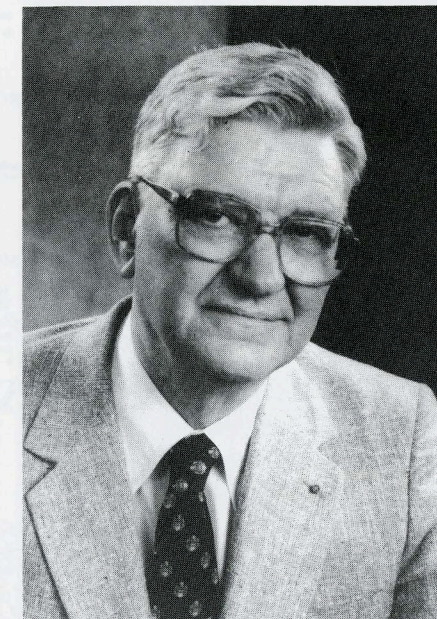
# Kennecott

by George W. Swenson, Jr.

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During our preparations for the attempt to climb Mt. Drum in the early summer of 1954 I had occasion to study topographic maps and photographs of the Wrangell Range of Alaska, and I was fascinated by the fantastic scale of the mountains, the tortuous courses of the rivers, and the magnificence of the glaciers. On the McCarthy quadrangle of the Alaska Topographic Map series is the highest mountain in the Wrangells, Mt. Blackburn, 16,523 feet above sea level. Flowing southward from its summit is the Kennicott Glacier, 27 miles long and over two miles wide, an enormous torrent of ice fed by the heavy snows that fall on this part of Alaska. Near the lower end of the glacier is indicated a town, also named Kennicott, wedged between the edge of the ice and the precipitous slope of Porphyry Mountain. What could a town be doing in such an unlikely position, at the end of a railroad which goes no farther?

Inquiry revealed that Kennicott was an abandoned copper mining camp, the first operation of a famous corporation which had been an important factor in world copper production for half a century. Local opinion around Fairbanks had it that the mining works were still more or less intact, though they'd been abandoned for two decades. I thought it would be a great adventure to explore this



**Dr. George W. Swenson, Jr. is Professor of Electrical Engineering and Astronomy at the University of Illinois-Urbana.**

ghost town in such a dramatic, isolated part of the world. During the next summer, 1955, the opportunity presented itself.

My friend Joe Pope had a little, two-seat, Cessna 140 airplane, and when I suggested a weekend trip to Kennicott he readily agreed. We flew first to Gulkana, about 200 miles south of Fairbanks on the Richardson Highway, then another 100 miles via the Copper, Chitina, and Nizina Rivers to the little hamlet of McCarthy. The last half

of the trip took us along the magnificent row of quiescent, ice-shrouded volcanoes that constitute the Wrangell Range: Mt. Drum (of which I've written earlier), Mt. Sanford, Mt. Wrangell, and finally Mt. Blackburn. On this route we followed the abandoned tracks of the Copper River and Northwestern Railroad, of which more anon.

The airstrip at McCarthy was of rough gravel, very short, and perched on a high bank above the snout of the glacier. Not atypical of the backwoods airstrips of the day: exciting, and calling for all Joe's skill in the brisk crosswind blowing down the glacier. As a novice pilot myself I was acutely aware of the hazards of such a landing, my knuckles even whiter than the ordinary passenger's might have been. Safely down, we shouldered our light packs and started up the railway toward Kennicott. We had seven miles to walk. Passing McCarthy we glanced curiously at the small group of cozy-looking houses, wondering how these extremely-isolated folks could make a living, and how they coped with their solitude. Since the railroad was abandoned twenty years earlier they had no transport but the occasional bush airplane, and dog teams in winter.

The tracks hugged the edge of the glacier on the left as we trudged up hill. On the right was a



forest of small spruce trees, with an occasional birch or aspen. We passed a cemetery with many white crosses; mining is always a hazardous calling, especially in such rugged country and such a severe climate. Finally, a small signboard, "Kennecott", perforated by a few bullet holes as are most road signs in rural Alaska. Oddly, the topographic maps spell the name "Kennicott", while the mining company's name is spelled with an e.

The mining camp was a surprise. The buildings appeared to be in good condition, as though abandoned only yesterday. Most were painted a dark red, neatly trimmed

in white. The massive mill buildings dominated the village, while comfortable residences for the engineers and managers and foremen and their families lined the only "street", the railway, with some planks laid between the rails to provide a pedestrian walkway. The place was completely deserted. One small house at the end of the street, having an outdoor privy and a wood-fueled cookstove and thus independent of the inoperative community utilities, was open and equipped as a traveller's refuge. We dumped our packs there and proceeded on our explorations.

The mines at Kennecott were developed on what has been

described as "one of the most remarkable orebodies ever found by a prospector" (The Copper Handbook, 1912-13). Massive outcrops of ore, as high as 70% copper, were found at the summit of a 6200-foot mountain ridge, so rich that it could profitably be mined by hand even before mechanized transport could be organized or ore processing machinery could be installed. The claims were acquired by the Guggenheim family who organized the Kennecott Mines Co. in 1907. The extreme isolation of the location made it necessary to construct a 200 mile long railroad from tidewater at Cordova, and to acquire the Alaska Steamship Co.

to bring coal from British Columbia and to bring the ore to the smelter at Tacoma, Washington. The construction of the railroad is an epic story, involving tidal floods, river floods, glacial floods, blizzards and 50-below temperatures, and some of the roughest terrain imaginable. As an engineering feat it was truly remarkable and it generated many romantic legends, some of them memorialized by the novelist Rex Beach in his 1912 novel "The Iron Trail". As we flew along the right-of-way we marvelled at the enormous timber trestles, one of them a semicircle a mile in circumference, others hundreds of feet high. The timbers were huge and must have been shipped in from Puget Sound or British Columbia. Despite the obvious challenges the rail line was finished in 1911, only four years after the company was organized, and when it finally reached the glacier's edge at Kennecott there were trainloads of high grade ore ready for shipment.

To have mined a large quantity of ore by that date must have been a remarkable accomplishment in itself. The ore body was 4000 vertical feet above the terminus of the railway and nearly three miles away horizontally. To reach the mines a cable tramway, with spans up to 1500 feet long, was constructed in two sections on forty timber towers, some up to 200 feet high. How such a structure could have been built without helicopters, presumably with only man- and horse-power, is hard to imagine. There was yet another remarkable feature of this tramway. The ore was shipped down to the mill in gondolas suspended from endless cables, and the supplies for the mines came up in the same gondolas. As the ore was much heavier than the upcoming supplies, there was no need for an external power source other than gravity. In fact, the potential energy of the downcoming ore was great enough to power the entire operation of the mines. The uppermost pulley was mechanically coupled to the mine machinery, and the tramway was kept moving at all times when the



The Hamlet of McCarthy, at the foot of the Kennicott Glacier. The Kennecott Mines are in the tops of the peaks in the background.

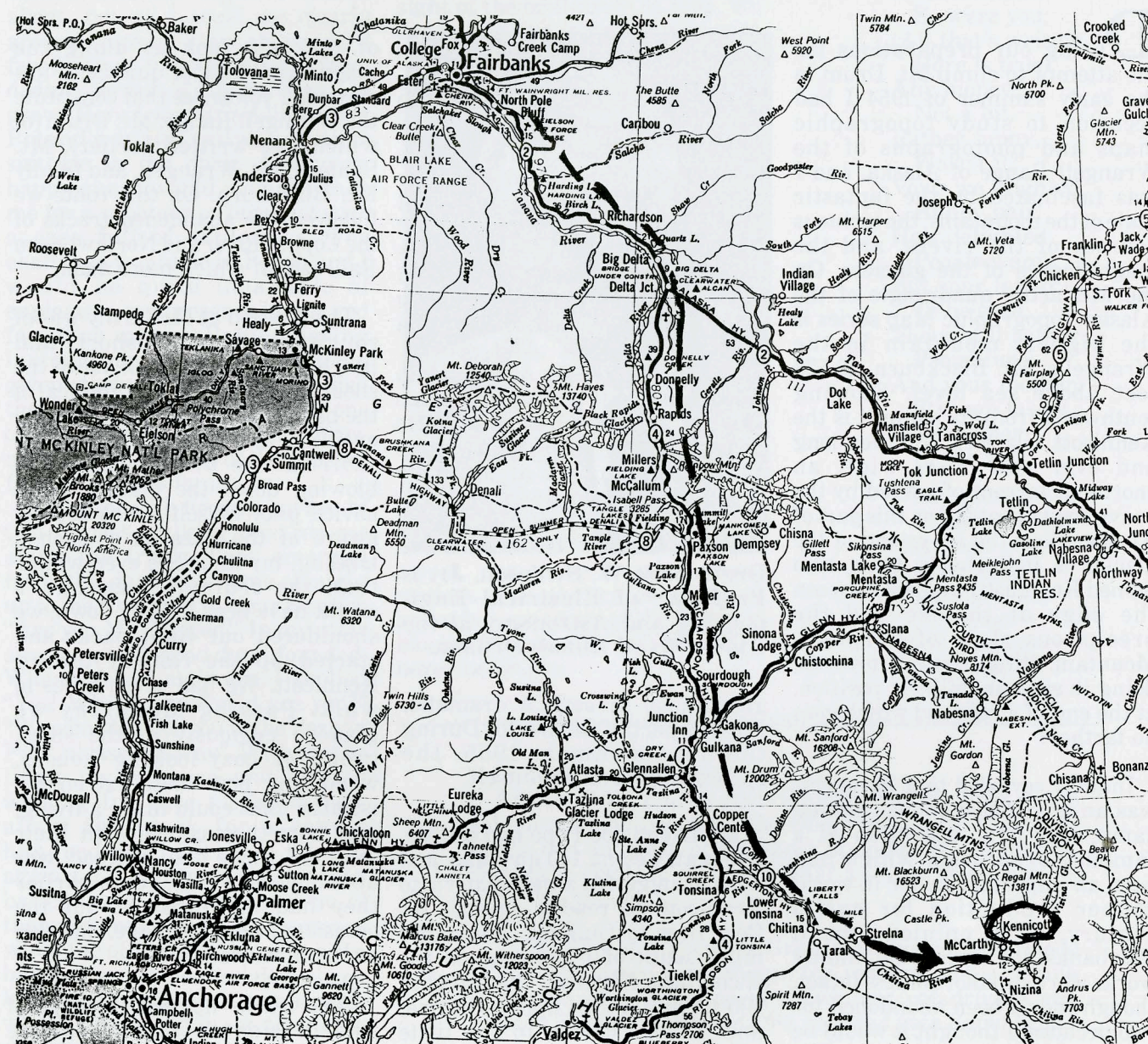


Looking down on the "main street" of Kennecott. Dormitory, warehouse and shops in the foreground; Kennecott Glacier (covered with rubble) in the background.

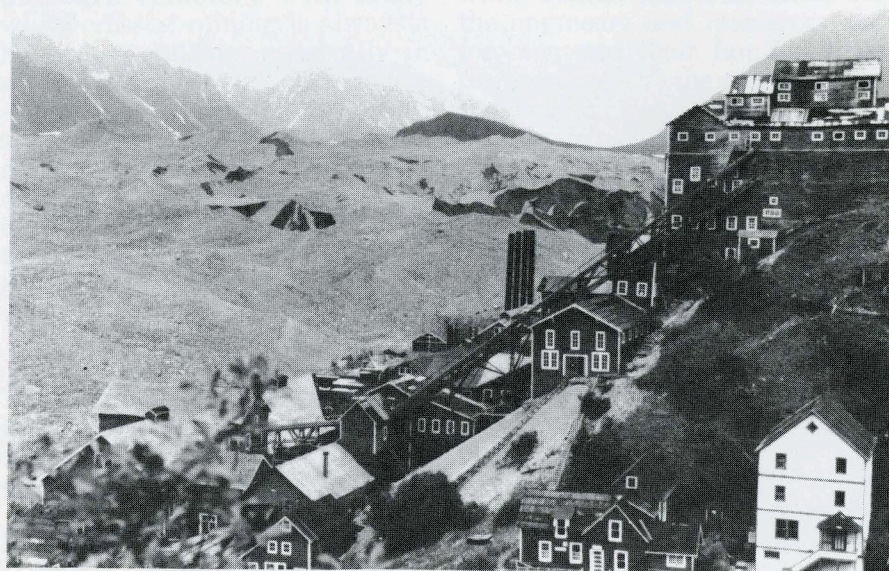
mine was in operation. I couldn't tell from the few remaining documents in the mine office if there was an electric generator up there or if, as was not uncommon in those days, the mine was run entirely by pneumatic equipment. As mining drills are usually air-powered, the latter seems likely. This remarkable power supply was rather typical of some of the

ingenious expedients used by mining engineers of the day, especially in remote regions where the mines had to be independent of commercial utilities.

The miners apparently lived in dormitories up at the mines. We could see the bunkhouse buildings perched at the top of the mountain, and there were a few records in the







Ore-processing mill.

main office concerning supplies sent up there periodically by the tramway. Presumably the men were permitted occasional days off and were allowed to come down in the tram, perhaps to hike down the

track to McCarthy to sample the delights of that place. Like most mining camps it must have had the usual entertainment facilities for single men who spent most of their time at hard labor interspersed

Pilot Joe Pope crossing Kennicott Creek on cable ferry.



with boredom in the bunkhouse. Certainly there was no evidence at Kennecott of any recreational facilities, and there were only a few family dwellings which must have been reserved for the engineers and managers.

Just uphill from the railroad, at the lower end of the tramway, was the mill where the ore was processed. This huge building was in staggered sections on the steep hillside, so that the ore could flow by gravity through the various processes. Having been raised in a copper mining district I've always been intrigued by the technology of that industry, so I spent several hours trying to reconstruct the flow chart of the mill: crushing, hand-culling, grinding, washing, jigging. The fine concentrates produced by these mechanical processes could either be sent to the smelter in Tacoma or, in a process installed in later years, chemically leached by a process involving ammonia to recover still more of the residual copper. The leaching plant was just downhill from the railroad, at the very edge of the glacier. When we entered it we were astonished to find the building half full of ice, to a depth of at least twenty feet, apparently accumulated from water flowing down the hillside. There was also a coal-fired electric power plant at the edge of the glacier, surmounted by four tall black smokestacks. Most of the machinery had been removed, but there didn't appear to be anything very unusual about that plant.

There were six mines at Kennecott, named Bonanza, Mother Lode, Erie, National, Jumbo and Glacier. The first five were in the tops of the mountains and were connected to various branches of the tramway. I'd have like to have hiked up to one or more of them, but it would have been a very rugged trip and my partner wasn't enthusiastic about the effort or the extra day it would have entailed. These mines were acquired by the Guggenheim interests at various times, and assembled into the complex that we saw. (While writing this I realized that I've probably benefited very directly

from these long-past financial manipulations: in 1984 I was awarded a fellowship by the Guggenheim Foundation).

In addition to the mines that were tunneled into the tops of the mountains there were mining operations above ground. Below the Bonanza outcrop there is a talus slope of rock that has sloughed off the face of the mountain, and this talus contained a large quantity of easily accessible, high-grade ore. In addition, it was discovered that the glacial ice below the mountain contained a substantial amount of extremely high grade ore. This deposit became the Glacier Mine; the ore was largely ice which was merely dumped on the ground to melt before shipment to Tacoma.

We explored the bunkhouse for the mill workers, and the warehouse from which supplies were issued to the cooks, the mechanics, the clerks and the housewives. We browsed through the few remaining files in the office, trying to reconstruct what we could of the technical operation and the lifestyle of the people. It must have been a romantic life, in a way, though full of challenge and hardship. The boldness of the entrepreneurs, the ingenuity and the stunning expertise of the engineers, the hardiness and toughness of the laborers, all excited our admiration.

After a night in the "guest house" and the hike back to McCarthy we took off for the flight back to Fairbanks, using every inch of the frighteningly short runway and clearing the rubble-covered snout of the glacier by an uncomfortably narrow margin. This time we paid particular attention to the railroad, flying as close as we dared. Again we were impressed by the difficulties its builders must have faced, and by the stupendous scenery through which it passed. There were a few small farms or truck gardens along the route, established, we guessed, to supply produce to the mines. One or two seemed to be still inhabited,



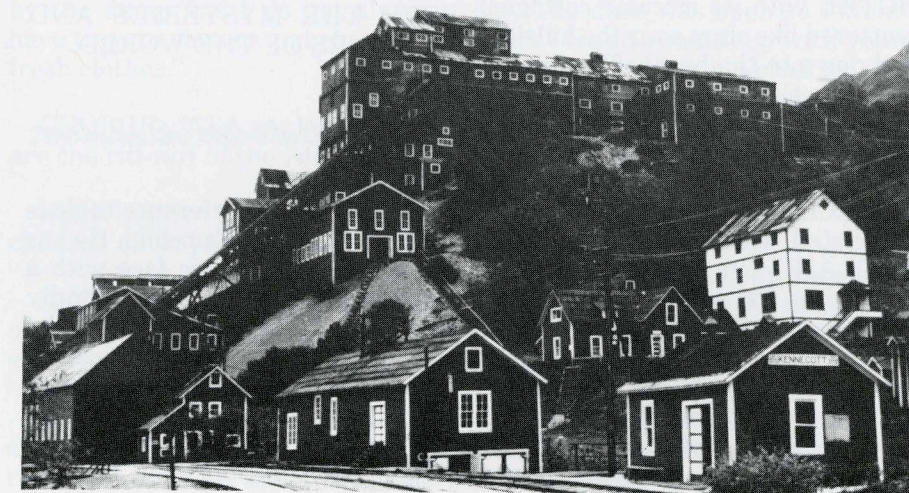
The "main street" of Kennecott.

though how they survived the loss of their market and their only transportation link to the outside world, we couldn't imagine.

The trip home was uneventful.

We had acquired a vivid memory and a new appreciation for the efforts of those pioneers who helped provide the wherewithal for the industrial development of our country.

The ore-processing mill. Railway station in right foreground.





# Miracle on Montserrat

by

**Prof. Paul K. Hudson**  
Executive Secretary  
and Editor

## PART ONE

Montserrat is a lovely little island in the British West Indies, a little to the right, both politically and geographically, of most things in the Caribbean. It is one of the few islands where English is the primary culture. The main town of Plymouth does not have much to recommend it, being made up chiefly of the **this and thats** to be found in all towns. However, as you drive along the south coast road the view of the ocean is breathtaking. On a hill overlooking the sea will be found the VIEU POINT HOTEL with its circular cottages scattered like stars over the hillside and down to the beach. The dining room overlooks a vast expanse of ocean and parties are given there two nights a week. A little farther along is the immaculate white CHURCH OF SAINT PAUL. It is associated with the CHURCH OF ENGLAND but at the same time recognizes the advantage of being far removed. As our story opens, it is evening and a special summoned meeting of the Executive Committee is about to take place. There is very urgent business to be considered.

Seated at the head of the conference table is the Rev. Dr. Kenneth Arlen. He is a young man, slender but not frail, and delicate but not feminine. His soft, kindly, searching eyes and his great depth of understanding and perception are adjuncts of a lightening sharp mind. When he comes into a room there is feeling all around that something substantial has arrived. At the

A LOVE STORY FOR THOSE WHO STILL RETAIN THEIR CHILDHOOD ENCHANTMENT WITH THE MYSTERIES AND WONDERS OF THE WORLD.

other end of the conference table is President Arthur Fairchild. He has a long, serious Gothic face with a drawl to match. He is a kindly person but all business. If the family cat has to be terminated, he is the one who will be expected to do it but he will accomplish the task in the most gentle way possible. Seated between them is

Vice President George Edwards and Secretary Jonathan Smith. Edwards is a large man, made to seem larger by the bright blue suit and the red necktie he often wears. He is an officer of the Board mainly because he is the richest man on the island and gives to the church accordingly. Smith is a sad and quiet little man who tries very hard to make himself inoffensive—a sandy beach from which the sea of life has receded. Not seated at the table as a participant but resting on a chair in the far corner of the room is the colored janitor Willie White, waiting for the meeting to be completed so that he can sweep out and lock up.

As the meeting starts, ARTHUR is saying: "I thank you all for coming to this hastily called meeting. We have a very urgent matter to consider that could not wait."

KENNETH: "Couldn't it possibly wait for a little prayer asking the Lord's help in our deliberations?"

ARTHUR: "Forgive me, Reverend. Go ahead."

KENNETH: "Well on second thought I think I will defer to Jonathan."

JONATHAN: "You mean you want me to say a prayer? I couldn't do that. I never pray in public."

KENNETH: "Jonathan, before you leave tonight please set up a conference with me. We are going to have to overhaul your carburetor."

GEORGE: "Jonathan, just record in the minutes that we all stood and said a silent prayer together, and let's get on with things."

KENNETH: "I wonder what prayer it was?"

ARTHUR: "Dr. Arlen I am sorry to have to tell you but this meeting has been called to evaluate your service to the Church."

KENNETH: "Very well. Do you have specific complaints?"

ARTHUR: "Yes. For one thing, a lot of members do not think you are very pious."

KENNETH: "It is true that I do not go around looking sad and prayerful like I was searching for coins the tourists might have lost, and I do not stand on street corners shaking my head disapprovingly at the sinners as they go by. I think we should all be happy and make a joyful noise unto the Lord."

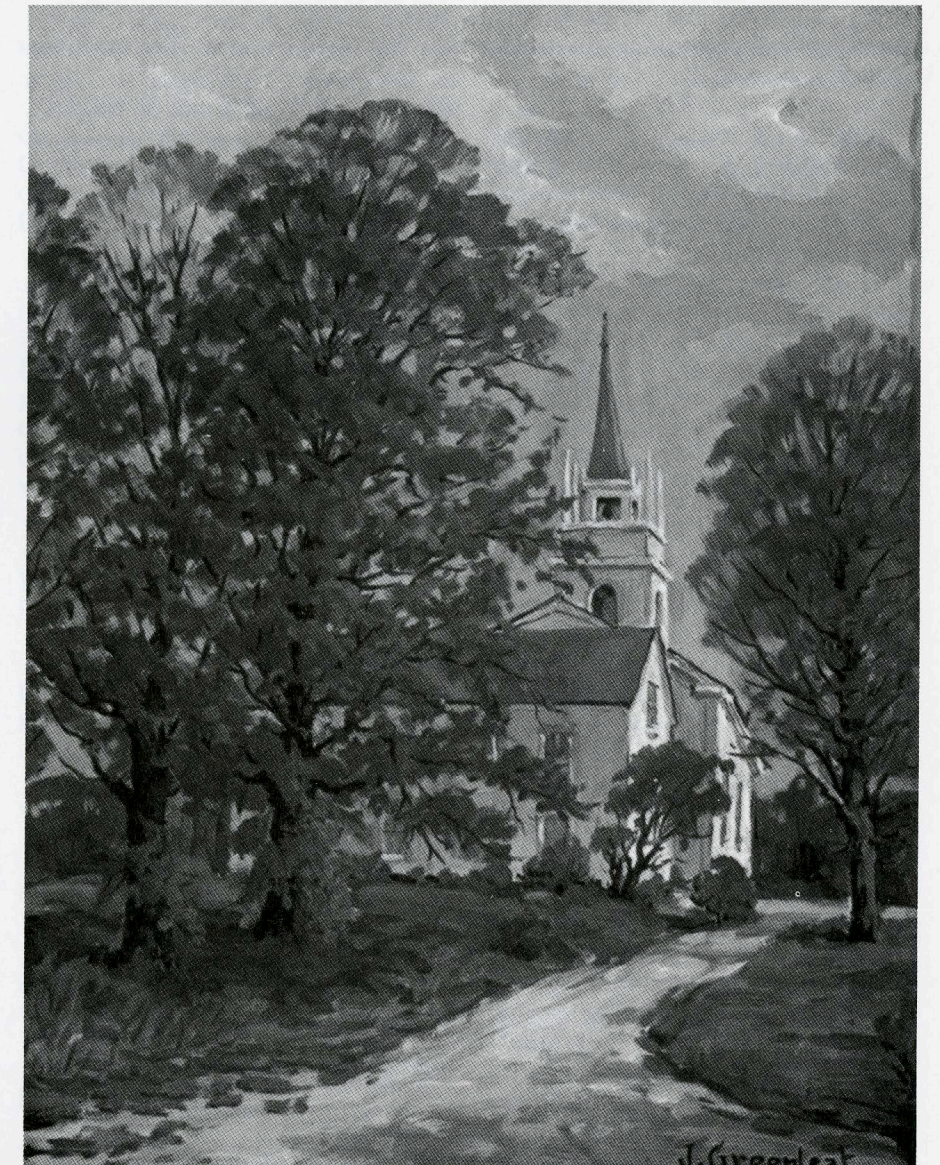
ARTHUR: "That was not the main thrust of the complaint. Look at you now. This is an important meeting but you did not even bother to put on a suit."

KENNETH: "I did not know you were going to call this meeting. My suit has frayed cuffs and I took it over to Mrs. Brown's house to have her mend them so I will look nice on Sunday."

GEORGE: "You mean you have only one suit of clothes?"

KENNETH: "It covers all of me. Remember the lilies, George. Remember the lilies of the fields."

ARTHUR: "Well there are a number of members upset because you come to Prayer Meetings once in a while dressed in a sweat shirt



and denim jeans. And a bit gamey, I might add."

KENNETH: "I have been playing baseball with some children over by the dump and I do not always have time to shower and change to fresh clothes."

GEORGE: "Yes, we know. They are the riff-raff of the island."

KENNETH: "They just look like children of God to me."

GEORGE: "Well, your children of God can not say anything without swearing."

KENNETH: "You would swear all the time now if you had been raised in a home like those kids

come from. I can't save the world, George, I just do what I can."

ARTHUR: "I came over to the Parsonage looking for you yesterday. The door was open so I went on in. I found you asleep with your clothes on at eleven o'clock in the morning. Dr. Arlen, you should be up and around in the daytime. You should be working on Church business, writing sermons, and all sorts of things."

KENNETH: "I was up very late talking things over with the Lord. The rates are much cheaper at night."

ARTHUR: "The Lord notwithstanding, we all have observed that although we pay your salary,



you spend more time with people outside of the Church than you do with the members."

KENNETH: "Arthur, when the Good Samaritan found the beaten man beside the road he did not ask what church he belonged to. He did not ask to see his American Express Card. And while we are on that subject, George, I have to tell you that a beggar came to the Parsonage door today begging for food. While he was eating the sandwich and milk I fixed for him I asked him if he had gone to your door. He replied that he had, but that you had turned him away."

GEORGE: "Well, I can't feed every beggar who comes to my door."

KENNETH: "Why not, George. You are rich. What are you going to do—stuff a camel through the eye of a needle?"

GEORGE: "The main thing is that feeding them at my door does not solve their problem."

KENNETH: "Turning them away does not solve their problem either. Let me tell you a little story, George."

ARTHUR: "Kenneth, we do not have time for any of your stories tonight."

KENNETH: "Oh, this will only take a minute and besides you guys do not have anyplace to go except home to do the dinner dishes."

ARTHUR: (rising from his chair) "Now just you wait a dang minute."

JONATHAN: (holding up his pen for emphasis) "He has a point there, Arthur."

KENNETH: "Thank you, Jonathan. George, see what you can do to stop Arthur from swearing at these meetings. That is your department you know. Now this is the story of THE VISION OF SIR LAUNFAL. When he was a young man he started out on an important Quest—the Quest of the Holy Grail—the cup from which

Jesus drank at the Last Supper. As he leaves his estate he sees at the gateway a beggar sitting in the dirt begging alms. In disgust, Sir Launfal throws some coins at him and rides away. He devotes his life to the Quest but never finds the Grail. Late in life he returns home and is astonished to see at the gateway of his home the same beggar who was sitting there when he left. This time he dismounts and goes over to the beggar and sits down with him. (Kenneth goes over to the center of the room and sits down on a small foot-stool.) Launfal shares his bread with the beggar and then takes a cup and goes to a nearby stream and gets some water. (Kenneth holds the imaginary cup reverently in both hands like a chalice.) The beggar looks at him with thoughtful eyes and says:

"Lo, it is I, be not afraid!  
In many climes, without avail,  
Thou has spent thy life for the Holy Grail;  
Behold, it is here—this cup which thou  
Didst fill at the streamlet for me but now;  
This crust is my body broken for thee,  
This water His blood that died on the tree;  
The Holy Supper is kept, indeed, In whatso we share with another's need;  
Not what we give, but what we share,—  
For the gift without the giver is bare;  
Who gives himself with his alms feeds three,  
Himself, his hungering neighbor,— and me."

(Dr. Arlen walks back to the conference table and looks at George.)

KENNETH: "You should keep in mind, George, that we never know when we may come face to face with the Saviour. The next time you do, I hope you will not throw coins at him or turn him away hungry from your door."

GEORGE: "I am not going to listen to any more of this. I am going home."

KENNETH: "Oh, sit down, George. You are a good man and you know I love you. I am just trying to help you get your foot in the door of Heaven."

ARTHUR: "Speaking of love, Dr. Arlen, brings up the next charge against you. It has been reported that some time ago you kept a young woman in the Parsonage over night. Is that true?"

KENNETH: "Yes, that is true."

ARTHUR: "Was she your sister or some other relative?"

KENNETH: "No."

ARTHUR: "Was she a married woman?"

KENNETH: "No."

ARTHUR: "Surely you must perceive the irregularity of a young unmarried preacher keeping a young unmarried woman in the Parsonage over night."

KENNETH: "Yes, it looks a bit strange, but I assure you that it was entirely indicated."

ARTHUR: "Would you care to explain that?"

KENNETH: "Certainly. I will be glad to explain the matter in complete detail and answer all of your questions to your complete satisfaction. However, I do not wish to do it just now."

ARTHUR: "When then?"

KENNETH: "Oh, I would say something like six months from now."

ARTHUR: "Why do you want to wait six months?"

KENNETH: "I can't answer that just now."

ARTHUR: "You can't tell us about the girl and you can't tell us why you can't tell us?"

KENNETH: "I am very sorry, but that is the way it is."

ARTHUR: "Well, Dr. Arlen, surely you must know that most of the members of this church will demand to know right now."

KENNETH: "That is very sad. Very sad, indeed."

ARTHUR: "Dr. Arlen, is there anything—anything at all—you would like to say at this time in your defense?"

KENNETH: "If I should die at this hour and stand in judgement, I would say only one thing. I would say that, in life, I tried always to be pure in heart, to help other people when I could, and never to hurt them. That is all I would have to say there and it is all I have to say here."

ARTHUR: "Dr. Arlen, you have pretty well driven us to the wall. We have no choice at all except to ask for your resignation."

(Dr. Arlen picks up a used letter envelope from the floor, turns it over and writes his resignation. He speaks aloud as he writes.)

KENNETH: "September 20th. I hereby resign my appointment as spiritual leader of the CHURCH OF SAINT PAUL, effective immediately. Signed, Kenneth Arlen, Bachelor of Divinity dash dash with highest honors; Master of Sacred Theology dash dash with highest honors; Doctor of Humane Letters dash dash Honorary; Church Pastor dash dash Failure. I do not have much worldly goods to pack. I will be out of the Parsonage by tomorrow noon."

ARTHUR: "What about your furniture?"

KENNETH: "If you will look under those throw-covers you will see that I made all those pieces from old wooden boxes. The new man can have what he wants and throw the rest away. However, I have worked three weeks of this month and I would like to have a check for that amount. I wouldn't bother you except that I need the money to get off the island tomorrow."

ARTHUR: "You don't have any money at all?"

KENNETH: "Well, I have a few dollars pocket money that I use to buy candy for the island children—THE ONES WHO SWEAR, George."

GEORGE: "We pay you fifteen hundred dollars a month, you live in the Parsonage free and have a free car, you do not buy any clothes, you do not buy any furniture, you do not buy anything but a little candy for the kids. What in the world do you do with your money?"

KENNETH: "There are lots of worthy people in the world who need it more than I do."

GEORGE: "Don't you want to put away a little money against your old age?"

KENNETH: "No, I intend to work until the day I die."

GEORGE: "But what if you become disabled before that?"

KENNETH: "I will go to an indigent home run by a Lodge to which I belong."

JONATHAN: "How much shall I make out the check for?"

KENNETH: "Eleven hundred dollars will be close enough."

ARTHUR: "Pay him for the whole month. Make it for fifteen hundred dollars."

KENNETH: "No, I do not want any gifts. I just want what I have earned. Eleven hundred dollars will do just fine."

KENNETH: "Now that I do not work for you any longer I am free to tell you why I did not want to talk about the girl. The problem is that I never think of myself as a preacher, but rather, as a Pastor. A Pastor is a man of the cloth who leads his flock into ways of pleasantness and paths of peace. He leads them into ways of holiness and the pathways that lead to salvation. Now the point is that he

can not lead them anyplace because they will not follow him anyplace unless they have a complete and explicit trust in him. I didn't tell you about the girl because I wanted to give you an important opportunity to trust me. But you did not do it. You fired me instead."

ARTHUR: "I believe this completes the business of this meeting. The meeting is adjourned." (The four members of the Executive Committee rise and start to walk out.)

KENNETH: "Dear friends, please don't leave here like that—like you are drifting out of a tavern. Please come back and let us have a moment of worship together before you go. Let us join hands together in a circle and while I recite the CREED, each of you repledge and rededicate your lives to your faith." (Recites creed):

KENNETH: "I believe in God the Father Almighty, maker of Heaven and earth, and in Jesus Christ his only Son, our Lord, who was conceived by the Holy Spirit, born of the Virgin Mary, suffered under Pontius Pilate, was crucified, dead and buried. On the third day he rose from the dead, ascended into Heaven and sitith on the right hand of God the Father Almighty, from whence He shall come to judge the quick and the dead. I believe in the Holy Spirit, the One Holy Christian Church, the communion of Saints, the forgiveness of sins, the resurrection of the body, and the life everlasting. Amen. And now, dear friends, go in peace and may the Light of God's love go with you each step of the way."

(Everyone walks slowly out of the room but in a minute or two George comes back.)

KENNETH: "Oh, hello George. Did you forget something?"

GEORGE: "No, I just came back to tell you that I plan to thrash over in my mind some of the things you said here tonight, and when I do, I expect I will start doing some things a little different."

KENNETH: "Thank you, George, for telling me. It was very kind of



you to do that. And, George, I really do love you."

GEORGE: "Yes, I think you do and, outside of my own family, no one else ever said that to me."

KENNETH: "Oh, I don't know. God says it to you every day in lots of ways."

GEORGE: "I never thought of it that way. Kenneth, there is one other thing I wanted to say to you. If you ever get yourself into trouble—I mean big ugly trouble that you can't handle, please call me and I will come and stand between you and the trouble."

KENNETH: "Thank you, George. I really appreciate that. Outside of my own family no one else ever said that to me."

GEORGE: "Oh, I don't know. God will always help you when you are in trouble. All you need to do is ask."

KENNETH: "George, you would make a good Pastor."

GEORGE: "No, that is not my game. The only thing I know is catching fish. Well, I must be going. Take care of yourself, young fella. The world needs you."

(Kenneth sits down at the conference table and lays his head on his arm. In a minute or so Willie gets up and comes over to him.)

WILLIE: "Don't feel sad, Dr. Arlen. I have always trusted you and I trust you now. I wish you could be my Pastor and lead me into the pathways of salvation."

KENNETH: "Sit down, Willie, and we will talk about it."

WILLIE: "Oh, I couldn't do that."

KENNETH: "Couldn't do what?"

WILLIE: "Sit down with you and pretend to be your equal."

KENNETH: (Rising from his chair) "You are my brother, Willie, and the same God is above us. Now sit down and visit with me."

KENNETH: "Willie, I only know good things about you. I know of no bad things. I don't think you need a Pastor very much. However, maybe I can help you with a couple of things. If I remember right, the Church pays you \$600.00 per month. Do you have any money left over at the end of the month?"

WILLIE: "It doesn't take much for me to live. I still have fifty cents of every dollar I ever earned. It is all in the bank in Plymouth drawing interest."

KENNETH: "You are talking about quite a few thousand dollars."

WILLIE: "Yes, I guess so."

KENNETH: "Well, Willie, you hang onto your money and don't let anyone get it away from you. A black man has a hard time of it when he grows old if he doesn't have any money. However, I think you are ready to offer some help to needy people without upsetting your budget. Do you know where Creole Street is over in Plymouth?"

WILLIE: "Yes, Sir, but it is not much of a street—just a few shacks."

KENNETH: "When you go down Creole Street from Main Street, the last shack on the left is occupied by a young black woman named Blandina Johnson, and her two little daughters, aged four and six. Her husband deserted her two years ago and they must live on charity. I bought the shack and gave it to them so that they would have a place to live and I take a sack of groceries over to them a couple of times a week. But now that I am going away, I do not know what will happen to the little group."

WILLIE: "Dr. Arlen, would you like me to take your place?"

KENNETH: "Yes that is exactly what I had in mind. Willie, if you do this thing right, not because I asked you to but because there is goodness in your heart, you will be taking some very beautiful footsteps into the Valley of the Saviour."

WILLIE: "Thank you, Sir. I will do my best."

KENNETH: "And, Willie—"

WILLIE: "Yes, Sir."

KENNETH: "From which there is no return."

WILLIE: "I think I understand, Sir. Dr. Arlen, I know lots of people on the island. How would it be if I tried to find her a job so that she would feel independent?"

KENNETH: "No, Willie, you can not do that. She is blind. She went blind two years ago and that is why her husband left her. He just couldn't handle it."

WILLIE: "Dr. Arlen, you can depend on me. I will not let anything terrible happen to the family."

KENNETH: "Well, Willie, now that we have that item of business out of the way there is only one thing that remains."

WILLIE: "What would that be, Sir?"

KENNETH: "Over in the kitchen of the Parsonage is half of an apple pie that Mrs. Williams made for me. I can heat it up in the oven and put some cheese on it and it will be real tasty. Also, I know how to brew coffee that is rich and fragrant. Willie, what do you say we go over and knock it off."

WILLIE: "Oh, I couldn't do that, Sir."

KENNETH: "Couldn't do what?"

WILLIE: "Eat at your table with you."

KENNETH: "Willie!!!!!!!!!!!!!!"

WILLIE: "Yes, I know, Sir. I am your brother and the same God is above us." (Willie starts to laugh.) "But, Sir, supposen I eat my pie pickaninny style?"

KENNETH: "A great idea. I will do the same. Pie is always best when you just pick-it-up-and-eat-it."

(As they leave the room, Kenneth puts his arm around Willie.)

KENNETH: "Willie, always remember this—when you are with friends, nothing makes any difference, and when you are with enemies, nothing makes any difference then either."

WILLIE: "I will try to remember that, Sir."

## PART TWO

(Part two takes place in the kitchen of the Parsonage an hour later. Dr. Arlen and Willie are seated at the kitchen table.)

WILLIE: "You were right, Dr. Arlen, this pie is delicious."

KENNETH: "Well, Willie, the cheese helps it out a great deal."

WILLIE: "My Grandmother always said that apple pie without cheese is like a kiss without a squeeze."

KENNETH: "I think I would like to have known your Grandmother. But now, Willie, I am going to tell you about the girl."

WILLIE: "You mean the one you kept in the Parsonage over night."

KENNETH: "Willie!!!!!! How many girls you think I get mixed up with at any one time."

WILLIE: "Sorry, Sir, I wasn't thinking. But you don't need to tell me about her. I trust you and know that you would never do anything wrong."

KENNETH: "That is the reason I am willing to tell you about her. Her name is Rose Martha. I think that is a pretty name and she is a very pretty girl. Well, at least old Arthur would call her a young girl. Actually she is 28 years old, the same as I am, and she is a Doctor of Medicine. I first met her when she came here to the island with her husband David on their honeymoon three years ago. They were here two weeks and spent almost every evening visiting with me in the Parsonage. I thought that was a strange way to spend a honeymoon, but I do not try to judge the world I just try to live in it. I thought

they were well matched and would have many happy years of married life together, but it was not to be. Something went wrong and they were divorced. But a number of months later Rose Martha decided that she was the real cause of the trouble and was sorry for it. So she went to David and told him so, and asked him to take her back. But there was a problem with that. In the meantime David had become ill and the hospital clinic was having trouble finding out what was wrong with him. So they decided that when he finally knew what his problem was, he would come to her and they would decide what they could do.

"The Clinic finally called him in and told him that he had a fast-developing case of Lupus. They could not predict when he would die but told him to put all of his affairs in order immediately. David went to see Rose Martha but when he arrived at her home she was having a medical conference of some kind and was leaving the next day for a convention in Detroit. He realized that she could not take care of a dying man without upsetting her whole life and he did not want to do that to her. So he got on a plane and came to Montserrat. I picked him up at the airport and brought him to the Parsonage.

"The next morning we were sitting on a bench down by the ocean watching the waves come in, when a very beautiful young lady came up to us. She just pointed to us and said, 'You are Kenneth and you are David and I am Jenny. Now that we have been properly introduced, take off your shoes and walk with me in the sand.' She was so pretty that we would have jumped in the ocean if she said so. She walked us up to her house, which was the little white rental cottage next to the Parsonage. When we got inside she said, 'David, you have Lupus and will need lots of care. I am going to be your nurse and take care of you. Kenneth, please go over to the Parsonage and get his things and put them in the spare room over there.' Well, to make a long story short, she took beautiful care of him. She cooked delicious meals and

invited me to eat with them. As David started to come near the end, she would have him lie on the couch and she sat there with him and held him in her arms by the hour. What a beautiful way to go. But go he did in something like two weeks. I was with them when he died. We buried him in the churchyard. You probably remember helping us dig his grave.

"About a week after David was gone, Rose Martha came to the island looking for him. She did not know that he was dead. She came into the Church office and said, 'Kenneth, I have been looking for David and people tell me that he is with you. Is that correct?' I replied, 'Yes, I will take you to him.' I led her out into the cemetery and when she saw his grave she just went all to pieces. I let her cry on my shoulder for a while and then took her back into the Church. We sat at the conference table and I told her things such as why David did not stay with her in Chicago, how Jenny had shown up and took care of him, and about his last days. While we were talking, Jenny came into the room. Rose Martha looked at her and said, 'Are you Jenny?' Jenny replied, 'Yes.' 'And you were with David when he died?' 'Yes, he died in my arms. He just looked up at me and smiled, and then closed his eyes and drifted away. There was no pain or suffering or anything like that.'

"Nothing was said for a few minutes and then Rose Martha got up and walked out of the Church. After a little while Jenny said to me, 'I think you better look after Rose Martha. She has walked out into the ocean with her clothes on.' I dashed out and got to her before the undertow did but I couldn't talk her into coming back. So I just picked her up and carried her back. She fought a little and I caught an elbow to the nose that bloodied it. We were both a mess when we got back. I went to her car and got her suitcase and she put on dry clothes. But then I considered that we had a real problem. I did not want to take her back to the Vieu Point Hotel because I was afraid she would go back into the ocean as



soon as she was left alone. So, I said to her, 'Would you be willing to stay at the Parsonage tonight if Jenny stayed with us?' She replied, 'I am willing to stay at the Parsonage but I do not want Jenny here.' So, the die was cast.

"I made up my bed real nice with some lovely sheets that the Chapman family gave me for Christmas, and let her have that. I slept on the floor beside her. Of course I could have slept on the couch in the living room but I wanted to make certain she did not get up and go out during the night without my knowing it. But I'll say this, Willie, I had forgotten how sleeping on a hard floor makes these two hip bones hurt." Willie replied, "Yes and the pelvic bone when you are skinny like me."

"When did you sleep on floors, Willie?"

"I was raised in a very large and poor family. The last one in at night had no place to sleep."

"And the last one up in the morning had nothing to wear?"

"That is close."

"Well, Willie, you have come a long way."

"Thank you, Sir."

"To get back to the story, Rose Martha had a bad dream in the middle of the night and woke up crying. I took her into the kitchen and fixed some hot chocolate and cookies, and we talked for a little while. I then tucked her into bed again and she slept the rest of the night. The next morning she said that she felt better and was all over the worst of the problem and wanted to go home. So I took her to the airport and put her on the eleven o'clock plane. Willie, that is the whole story with nothing important left out."

WILLIE: "I think it was a mighty fine thing you did, Dr. Arlen. You saved that women's life once and maybe twice."

KENNETH: "Yes, I suppose so,

but it still got me fired from my job. And I don't think it would have done any good to tell them this story. If they did not trust me, they also would not believe me."

WILLIE: "I hate to put a stop to this interesting party but it has started to get late and I should start heading for home."

KENNETH: "I will take you home, Willie. I am going over to the Robinson home and I will just drop you off on the way."

WILLIE: "You are going to make a house call this late at night?"

KENNETH: "Not exactly. Nancy Robinson's little two-year-old boy is very ill and I do not know if he will make it or not. When they put him to bed his little insides hurt and he cries all night. Nancy has to work very hard all day at her regular job to keep food in the house and can not sit up with him all night. So I go over each evening and sit in a rocking chair, wrap the little guy in a blanket and hold him in my arms. That way he sleeps all night without crying."

WILLIE: "You mean you sit up and hold him in your arms all night?"

KENNETH: "Yes, until his grandmother comes in the morning to take over."

WILLIE: "No wonder you were asleep with your clothes on at eleven o'clock in the morning. Why didn't you tell Arthur about it?"

KENNETH: "I don't think it would have cut any ice with him. He would just say that Nancy is not a member of this Church and my first responsibility is to the Church. He is not right about that though. My first responsibility is to the Lord. I could not look into that sick little boy's face and then put him in a room, shut the door and let him cry all night."

WILLIE: "Dr. Arlen, you are going away tomorrow. Who will hold the little boy tomorrow night?"

KENNETH: "Willie, it is like I told George, I can't save the world, I just do what I can."

WILLIE: "Do you suppose he would let me hold him starting tomorrow night?"

KENNETH: "You would be willing to do that?"

WILLIE: "Yes, if he will let me and it is alright with Mrs. Robinson."

KENNETH: "Yes, I am sure it would work out, especially if you come with me now so that the little guy will get used to you while I am still here. Willie, it is like I said, when your footsteps have taken you into the Valley of the Saviour, there is no return even though they may eventually lead you to your own private Calvary."

WILLIE: "Like yours did you at the meeting tonight?"

KENNETH: "Yes, that is a good example. Like Saint Paul, I was crucified because I tried to be a good Christian. And you were my Onesimus."

WILLIE: "I can't seem to place him."

KENNETH: "He was the convert who walked with Saint Paul to his crucifixion to comfort him and carry his coat. It was a simple kindness but because he offered it, his name lives forever in the Holy Bible. When you get time read the Book of Philemon. You have a Bible don't you?"

WILLIE: Oh yes. It is all worn out and fallen to pieces but I would never give it up because we have spent so many hours together. I am sure I can find Philemon."

(Dr. Arlen leaves the room and in a minute returns with a beautiful Bible.)

KENNETH: "This is the only Bible I ever bought for myself and I bought it because it is the most beautiful Bible I have ever seen. Keep your worn-out Bible, Willie, but please accept this one as a gift

from me to you on this special evening. I will inscribe it for you in a special way." (He opens the Bible and writes in the front: FOR MY DEAR FRIEND ONESIMUS WHO COMFORTED ME AT MY CALVARY, WITH MUCH ADMIRATION, RESPECT AND LOVE, FROM SAINT PAUL.) You will be the only one who sees this bible and knows what that is all about. And when you are walking up your own Hill of Calvary, take the bible with you and you will never walk alone. And now, lets go see about the little Robinson boy who needs us so much."

### PART THREE

PART THREE takes place four months later in the small chapel of a large metropolitan hospital in Chicago. There are a few people there and Dr. Arlen is just finishing a short religious service.

KENNETH: "Reading now from the Revelation of Saint John the Divine:

And I, John, saw the holy city, The new Jerusalem, Coming down from God out of heaven, Prepared as a bride adorned for her husband.

And God shall wipe away all tears from their eyes; And there shall be no more death, Neither sorrow or crying, Neither shall there be any more pain: For the former things are passed away."

At the conclusion of the service he shakes hands with two people who come forward and then sits down in the front pew and starts to read a letter that he had in his pocket:

Dear Saint Paul: I am very poor at letters but wanted to tell you the news. There is good news and bad news. The bad news is that the little Robinson boy died two weeks after you left the island. His days of pain and tears are over. I really learned to love the little guy. I

bought a plot in the cemetery in Plymouth so he would not have to be buried in Potter's Field. I also got a headstone for him with roses on it because he reminded me of a little rose bud. The good news is that Blandina and I got married about a month ago and we both are very happy. The little girls already call me "daddy" and I just love them to pieces. I will try to make sure that they never again have any sorrow in life. Blandina and I pray together for an hour each day asking God to give her back her sight. Already she can see a little daylight and we feel sure she will get it all back before long. I did not realize that God makes it so easy for people who truly love Him and obey His rules. Take care of yourself and always keep the faith even when you are walking up Calvary Hill. Yours in kindness, Onesimus.

(As he finishes reading the letter he looks up and sees that Rose Martha is standing quietly beside him.)

KENNETH: "Rose Martha—what a joy to see you. You are in uniform—I had no idea that you worked here. Let me guess—I'll bet you are Chief of Staff of Pathology."

ROSE MARTHA: "Yes I was lucky—I was the right girl at the right place at the right time."

KENNETH: "Lucky nothing, I am sure that in a very short time you will be Chief of Staff of the whole hospital."

ROSE MARTHA: "No, don't hold your breath until that happens."

KENNETH: "Well, I'll bet I could stand on one foot that long."

ROSE MARTHA: "No, don't try that either. I presume you are Director of Pastoral Care for the hospital."

KENNETH: "Yes. I have been here only a few weeks but I realize that this is where I belong. Some of these people are in desperate need of me and I am willing to offer whatever comfort I can."

ROSE MARTHA: "Kenneth, I have been searching all over for you. I have called and written everyone who might know where you were, but no one did. You just vanished."

KENNETH: "That is too bad. I have been here in Chicago ever since I left Montserrat. I have been working and living at the Salvation Army building."

ROSE MARTHA: "You were a Captain in the Salvation Army?"

KENNETH: "No, you don't get to be a Captain in the Salvation Army by just walking in and saying 'Hi fellers, here I am.' I worked in the used clothing store, the kitchen, and played trumpet in the band."

ROSE MARTHA: "You would rather do that than be the pastor of a church?"

KENNETH: "You don't get to be the pastor of a church by just walking in and saying—aw you finish it."

ROSE MARTHA: "What?"

KENNETH: "You finish it."

ROSE MARTHA: "Oh, you mean 'Hi fellers, here I am.'"

KENNETH: "I didn't really have a regular room in the Army building. I slept on a mattress on the floor of an upstairs hallway. I had the longest and narrowest bedroom in America. But I was not lonely because I had Elmer."

ROSE MARTHA: "And who was Elmer?"

KENNETH: "A little mouse that skittered around over the place. In the evening I would bring him a little piece of cheese or something from the kitchen and he got so tame that he would eat it out of my hand. Later he got so tame that when I was asleep he would crawl up on my shoulder, go to sleep, and snore in my ear. I finally had to make him a little bed of his own beside mine so that I could get some sleep."



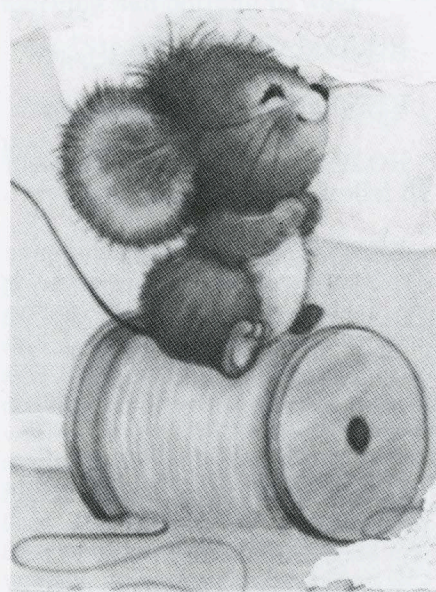
ROSE MARTHA: "Kenneth, please do not laugh at me. I wouldn't want you to laugh at me just now."

KENNETH: "I am not laughing at you. Elmer was real. I named him after an uncle who had an over-active thyroid problem. You have to remember that in my daily life, Elmer was the only living thing that loved and trusted me. He loved life and looked forward to each new day with joy and gladness. In the evening when the night started to close in, he became quiet and thoughtful. I doubt if he had any awareness of the long night to come later in addition to the short one that was upon him, but it seemed to me that somehow he did."

ROSE MARTHA: "It must have been sad for you to have to leave him when you came here."

KENNETH: "Oh, he left a few days before I did. Got caught in a trap someplace I suppose."

ROSE MARTHA: "That is terrible."



Elmer

KENNETH: "Well, life is full of traps. They don't always kill us as his did him but they can make us very uncomfortable sometimes. A minute ago you said that you had been searching for me. Why?"

ROSE MARTHA: "Why was I searching for you?"

KENNETH: "Would you like to go out and come in again?"

ROSE MARTHA: "No, that won't be necessary. I just have trouble answering such a direct question."

KENNETH: "Mark Twain always said, 'When in doubt, tell the truth.'"

ROSE MARTHA: "Very well, I will tell the truth. I miss you. I want you to be a part of my life. I want to see you each day and talk with you. Does that shock you?"

KENNETH: "Well, it is a big and fast-paced world we live in. People come and go all the time. The only way that you could make me a permanent part of your life is to marry me."

ROSE MARTHA: "Are my ears working right? Did you just ask me to marry you?"

KENNETH: "It was part of a package deal. I was also explaining some things about the world."

ROSE MARTHA: "Package, smackage, I don't care. I would be honored to be your wife and the sooner the better."

KENNETH: "The blood tests take three days. Can you stand up under the strain of waiting that long?"

ROSE MARTHA: "I will read a book to get my mind off of it."

KENNETH: "I expect I should tell you that I lead a rather quiet life. I have never been shot, branded, mugged or chased by the Cops."

ROSE MARTHA: "I am glad to hear that. I was worried."

KENNETH: "There is one other thing that you should know. You will have to live in a more humble home than most other Doctors have. I do not earn half as much as you do but I insist on paying all the bills. If I did not pay for the home you lived in and the food you ate, I would not feel that you belonged to me."

ROSE MARTHA: "There is a very old song that begins with these words: 'As you desire me, so shall I come to you. How ere you want me, so shall I be.' I can't say it any better than that. However, I would not want our marriage to become one of those uncomfortable traps for you. If it does, you must tell me. There is only one other thing that I must say now and then I will never mention it again. You and I both believe that there is a world after this one. If that is so, and if David is there, I wouldn't want to turn my back on him."

KENNETH: "There is no problem with that. Love and marriage are not the same there as they are here. And then there is another matter that I am sure you will want to consider. When Jenny lived on the island I was completely blind to her. It wasn't until she left the island that she came into register. When Jenny saw the two of us on the beach and said, 'You are Kenneth and you are David' she had no way of knowing that. But I did not think it strange. When we got to her house and she said, 'David, you have Lupus' she had no way of knowing that. And when you, Jenny and I were in the church office talking and you got up and walked out the door, Jenny did not look to see where you were going. She just kept sitting in her chair. Yet in a few minutes she said to me 'Better go help Rose Martha—she is walking out into the ocean with her clothes on.' She had absolutely no way of knowing that."

ROSE MARTHA: "Well then, how did she know?"

KENNETH: "I wondered all that myself, but she left the island before I thought to ask her. I wanted to contact her so I went down to the airport and asked to see the manifest of the plane that flew yesterday, but her name was not on it. Then I went down to the boat dock and asked to see the manifest of the ship that left yesterday but her name was not on that either. Don't ask me how she got off the island. I then wrote to the lady who owns the rental house and asked if she had an address for the lady who

had rented her house in September. She replied that the house had not been rented in September because the pump in the well was broken and she had not gotten it fixed yet. I dashed over to the house with the key that the Church keeps and, sure enough, the pump was broken and there was no water. But there was plenty of water when Jenny was there."

ROSE MARTHA: "Kenneth, what are you trying to tell me?"

KENNETH: "I was with Jenny and David when David died. She was holding him in her arms like she said. And he did open his eyes and smile at her before he closed them again for the last time. But when he opened his eyes, he did one other thing that she did not tell you about. He said to her, 'Will I be seeing you in a little while?' She replied, 'Yes, in just a little while we will be together again.' So David knew. I do not know how he knew. I do not know if she told him

or he just put two and two together. But one way or another, he knew."

ROSE MARTHA: "Kenneth, what are you trying to tell me. Are you telling me that Jenny—. Yes, you are telling me that, aren't you. Oh, Kenneth, hold me—hold me tight in your arms. Please don't ever let me go—hold me, Kenneth, hold me."

(Kenneth holds her tight in his arms, and they kiss each other, and the story ends.)

## An Engineering Problem

Following is an interesting story that appeared in a Danish engineering magazine:

An engineering student at the University of Copenhagen was asked how he would determine the height of a building with the use of a barometer.

The student answered that he would tie the barometer to a string, dangle it over the edge of the roof until it touched the ground, measure the string, add the length of the barometer and come up with the total height of the building.

The professor accused the student of trying to make fun of him and gave him a failing grade in the course. The student protested and took the matter up with the university authorities, pointing out that the method he had suggested would give the correct answer and that he was nevertheless being punished. The university appointed an independent person to judge the case, and the person appointed ruled that the student's answer did not prove that the student did not know the material required of him. The student should therefore be given another chance to answer the question. If he answered it correctly his failing grade should be deleted.

The student responded that he had several correct answers to offer and the judge was free to choose any one of them.

One way would be to take the barometer to the roof and throw it

over the edge. By timing its descent to the ground and multiplying half of that figure by the square root of the gravitational pull, the height of the building would be determined.

Alternatively, he added, one could measure the shadow cast by the building and the shadow cast by the barometer at the same time any time on a sunny day, then calculate the height of the building by figuring out the ratio between the length of the barometer and the length of its shadow and applying the same ratio to the length of the building's shadow.

A third option: One could climb the fire escape and measure the building, using the barometer as the unit of measurement.

But the method which was his own personal favorite, he said, was this: Go see the concierge of the building and promise to give him a barometer as a gift if he told him the exact height of the building by looking at his records.

The student said he was fully aware that you could also find the height of the building by using the barometer to measure the barometric pressure at ground level and on the roof and then applying a well-known formula to deduce the distance between the ground and the roof, but he found that to be too convoluted a method and he personally preferred the other ways.

In fact, he said, he saw no reason why he should be hampered by a barometer at all, since he could determine the height of the building in a few seconds by calling the

records department at the municipality and asking the clerk in charge.

Whether the student passed the course or was debarred I don't know, but I think he has a good chance to pass the tests that will be coming his way after graduation.

He seems to have learned early on that there is more than one correct answer to every question.

It is said of England's Prince Philip that he once undertook to pilot a new flying boat for his visit to Ulster. All went well as he and his Irish copilot flew across the Irish Sea. But, as they approached the rugged coast of northern Ireland, Philip decided to land the plane at the Belfast airport.

"But, Your Highness," protested the copilot cautiously, to avoid offending his royal superior, "this is a flying boat! Don't you think it would be wiser to come down on the sea?"

"Why, of course it would!" exclaimed the prince, smiling with embarrassment at his own forgetfulness.

They made a safe landing on the water, and Philip laid a friendly hand on the copilot's shoulder. "Commander," he said earnestly, "I want you to know that I greatly appreciate the tact with which you prevented me from making an incredible and stupid blunder. You may be sure that I shall recommend you for promotion."

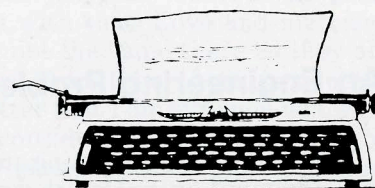
The prince then opened the door and stepped into the sea.



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# High Five

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An old reprobate, the worst liar in town, was strolling down the street when he came upon Sister Agatha of Holy Conception Church.

"Wh-why," she stammered in surprise, "Father O'Malley told me you passed away!"

"Passed away, did I?" he laughed. "Faith, Sister, I'm alive and well, as you can see for yourself."

"You *appear* so," she replied hesitantly, "but you must admit, Father O'Malley has a better reputation than you for the truth!"

I know a family of air pioneers. The father was the first to jump one thousand feet from an airplane. The mother was the first to jump two thousand feet from an airplane. The daughter was the first to jump three thousand feet from an airplane. Now the son is going to be the first to jump ten thousand feet from an airplane. You see he figures he has nothing to live for anyway. He has no family.

Benny arrived home to find the kitchen a mess of broken crockery.

"What happened?" he asked his wife.

"There's something wrong with this cookbook," she explained. "It says that an old cup without a handle will do for the measuring—and it's taken me eleven tries to get a handle off without breaking the cup."

"Our fifteenth anniversary. I haven't forgotten, honey darling. You look the same as you did when I married you fifteen years ago."

"I should. I'm wearing the same dress."

The two female writers were running neck-in-neck for the coveted honor of female writer of the year. At long last the decision was reached and the runner-up was asked to make the presentation. When they were on the stand the victor asked, "How do you feel standing next to me?"

"Very young," said the vanquished.

Padraic had just arrived in the United States from County Meath and obtained a position as gardener for the fashionable Rockerfeller family. Innocently unaware of the prejudice of class distinction, he applied for membership in the most exclusive church in all of upstate New York, simply because it was near to his place of work and his living quarters. The priest attempted to put him off with all sorts of evasive excuses until Padraic became aware of the fact that he simply was not wanted.

"Why not go home and sleep on it for a few days?" suggested the priest, not too unkindly. "I'm sure the Lord will tell you what to do."

A week later, Padraic returned.

"Well, my son, did the Lord send you a message?" asked the priest.

"That he did Father," replied Padraic. "He said, 'Sure, an' 'tis meself that's been thrying' to get into that same churrrh for twinty years.'"

When a top executive is selecting his key associates, there are only two qualities for which he should be willing to pay almost any price: *taste* and *judgment*. Almost everything else can be bought by the yard.

John W. Gardner

Hard work and ambition can carry you far, even if you don't have much formal education. A junk dealer in a northeastern state who became a millionaire never got beyond the eighth grade. When asked how he managed to do so well in spite of his handicaps, the fellow replied: "Well, it ain't hard really. I just buy things for \$1 and sell them for \$4. You'd be surprised how fast that 3% profit piles up."

A time of quietude brings things into proportion and gives us strength. We all need to take time from the busyness of living, even if it be only ten minutes to watch the sun go down or the city lights blossom against a canyoned sky. We need time to dream, time to remember, and time to reach the infinite. Time to be.