



The author (center, wearing cap) with his Russian colleagues after a day's work in the meteorology office at Mirny, base camp for the expedition.

I Lived With the Russians in Antarctica

The first American to spend a year with Soviet scientists at the South Pole reveals what he learned by living and working with the men from behind the Iron Curtain.

By GORDON D. CARTWRIGHT with Beverly Smith, Jr.

I am a meteorologist. My primary interests are in forecasting the weather, improving our observations of it and filling in the still-serious gaps in the world-wide network of weather stations. One of the largest gaps has been over the antarctic continent.

Until late 1956 my life, while varied and roving, was not unusual. As a youngster I had my share of manual and mechanical work—which I happen to like—in the little steel town where I grew up, one of seven children. For many years my work and education went along side by side. At thirty-three I got a B.S.

in meteorology, but with little grounding in languages. My work had followed a modest pattern. I had found not affluence but a place in an honorable profession. I had never taken part in politics, American or international. Although fond of music, I had never learned to dance. I was neither very sociable nor very convivial.

Then—from Christmas in 1956 until March of 1958, during my forty-ninth and fiftieth years—came startling changes.

On Christmas Day I was still the same quiet, rather retiring meteorologist. I passed the day



This is one of the 450-horsepower tractors the Russians used to explore the interior of Antarctica.



The Soviet icebreaker Ob leads the Kooperatsia through pack ice en route to the Antarctic base.



Captain Jantselevich of the Kooperatsia ("Co-operation") brought his vessel safely through the violent sub-Antarctic storms.



Above: Scientist Oscar Krichak (left), Cartwright's boss at Mirny, with Vladimir Kunyn, the American's interpreter and cabin mate.

Below is one of the ten women crew members of the Kooperatsia, a twenty-seven-year-old passenger-refrigerator ship of 5600 tons.

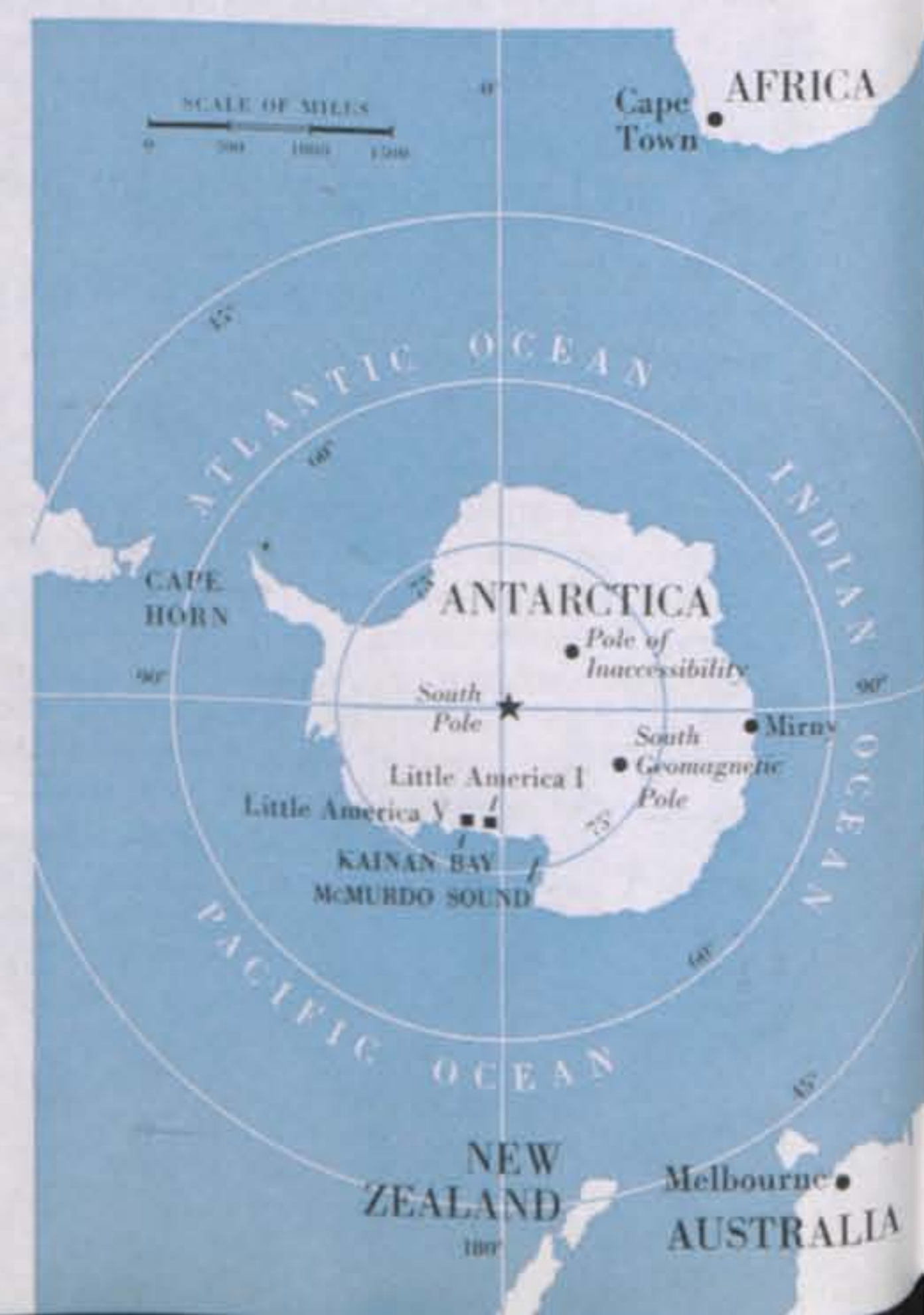


in Capetown, South Africa, visiting scientific and consular friends. In leisure moments I rehearsed the scanty Russian I had been able to cram up during the autumn. In August I had been assigned by our Government as the first American to accompany a Russian scientific expedition to the South Polar regions. As such I was to be the only American—in fact the only non-Russian—with their 180-man Second Antarctic Expedition. This was a part of the co-operation between nations planned for the IGY—the International Geophysical Year. The 5600-ton Russian ship Kooperatsia was to pick me up at Capetown on December twenty-sixth.

How could I foresee on December twenty-fifth that within four days, half seasick and carrying more vodka than was good for me, I would be struggling through a toast in Russian, to loud applause and some muffled laughter? Or that at the big "formal" New Year's Eve celebration aboard ship, in heavy weather, I would actually be dancing, if one can call it that. Late in the evening I was seized—despite my protests—by a tall, sturdy, gay young Russian waitress. All I could do was go along. She steered me round and round at a dizzy pace. Delighted spectators cleared the deck for this unscheduled tripping of the light—or light-heavy—fantastic. At times my Navy boots seemed barely to touch the floor. Finally, as Kooperatsia plowed into a big roller, we were flung against a steel bulkhead—thus ending the dance with a bang. This performance was enjoyed uproariously by all.

Nor could I foresee that within a few weeks, on the polar icecap, I was to feel the scorching heat of an uncontrollable fire. Or that, along with a dignified array of penguins, I was to attend the solemn and touching funeral rites for the two young Russian sailors who, in line of duty, had been hurled into the sea by falling ice; they died of cold and shock before they could be pulled out. Or that, at the urgent bidding of my Russian hosts, I would at times consume 190-proof compass alcohol, mixed fifty-fifty with snow, water or fruit juice. This by the full tumbler, bottoms up. Whew!

Ordeals? Yes, sometimes. But such things seemed to contribute to understanding and



friendliness. I actually enjoyed many of the festivities when they were moderate; when they went beyond that, I felt it my duty to follow the customs of my hosts. Such customs seem strange to us; they were not strange to some of our rugged pioneer forebears who opened up the West. Indeed, I seem to recall such doings more recently in Texas, in the Northwest and at convention jamborees in many cities.

I may add that, among the perils of my stay in the Antarctic, I found rousing Russian parties the biggest threat to next day's health and peace of mind. These convivial storms rose to hurricane force on occasion, especially during the visit of three delightful Australians who flew in from their base a few hundred miles away. The Aussies, another tough young people, seemed as willing to match toasts as the Russians.

Another brief, sharp twister blew up during the sixteen-hour visit of a United States Navy icebreaker with

(Continued on Page 85)

ABOUT THE EXPEDITION

Much has already been published about the purpose and programs of the century's most ambitious peacetime scientific effort, the International Geophysical Year. The IGY is a joint effort by 66 nations to increase man's knowledge of the structure and shape of the earth, the circulation of its seas, the processes of its weather, and its relationship with the sun. The results of this vast study of our planet are important to all mankind.

But science is not carried forward by instruments and equations alone. It is the

scientist himself who must hammer out the plans, make the observations and draw the conclusions which are leading us to a better understanding of man's environment.

The story which follows is mainly about scientists as individuals, particularly about a unique co-operation between Russian scientists and an American meteorologist. Gordon D. Cartwright lived and worked shoulder to shoulder with the Russians for 14 months in closer intimacy, perhaps, than any other native-born American in our history.

—The Editors.



Nikolai Grigoryev, an expert on frozen soil, measures below-the-surface temperatures at Bunger Hills, a Soviet scientific substation about 200 miles from the main base.



"The spirit of pioneering still runs strong among the Russians," says the author. Above, construction of new meteorological quarters at Mirny, January, 1957.

Below is an AN-2 ski plane which flew reconnaissance missions along the fringes of the continent and carried personnel to outlying stations.



I Lived With the Russians in Antarctica

(Continued from Page 25)

IGY scientists on board. Our Navy men, bone-dry at sea since the days of Josephus Daniels, are not necessarily averse to a friendly glass ashore. A few of our salts, thirsty and out of drinking training, eagerly accepted the hospitality pressed upon them. Except for my successor, Morton Rubin, these were the first Americans I had laid eyes on since leaving Capetown more than a year before. With both the Australians and the Americans I was pressed into service as interpreter, guide, counselor, diplomat and nurse.

I was overjoyed to see all these visitors; naturally, I had my times of homesickness for my own kind. But I may add that my long stay, alone among the Russians, was one of the most interesting and stimulating periods of my life. They are a remarkable people, living under a political rule that seems strange and intolerable to us. It is with my impressions of, and experiences with, my Russian companions as human beings—not as political creatures—that this article is mainly concerned.

I think most Americans will be interested in the Russians as I saw them. Certainly they were a revelation to me. These people have lived for decades behind the curtain of dictatorship and censorship. We tend to think of them as "faceless men."

I used to wonder whatever became of those characters depicted by the great Russian writers before the 1917 revolution—by Tolstoi, Turgenev, Chekhov; by Gogol and Dostoevski. And—yes—by Maxim Gorki in his autobiography of his prerevolutionary childhood and university days. They were characters of extraordinary variety, color and zest; good and evil; heroic, comic, grotesque or tragic—as sharply differentiated as the characters of Balzac, Dickens, Fielding, Mark Twain or Tom Wolfe.

Where are such vivid characters now? I found the answer at the Russian base in Antarctica. They are still around, as individualistic as ever. With this important exception—they did not seem to have the inquisitiveness and critical approach toward politics that you would find in a similar group from a country long used to self-government. Also, I found that they knew little about how non-Communist peoples live today. But then, I thought, how much did I really know about their normal life back home?

Naturally, I did not see the sodden, ineffectual or psychotic types one sometimes finds in the old masters. The men at the base had been carefully selected for this rigorous duty and honor. From cooks to sea captains, from scientists to tractor drivers, from Communist "political officer" to the pilots of planes and helicopters, they were persons of proved ability and stability. Some might on occasion drink heavily, but they were on the job, red-eyed yet alert, next morning.

I recall so many of my companions with pleasure. Oscar Krichak, my boss, a first-class meteorologist, a frolicsome musician, and the only man on the base who could make a penguin-egg omelet palatable. And bighearted Ivan Alexievich, the kitchen bus boy and light-verse poet, who was eager to learn a bit of English and to know more about his new American friend. When he would serve me my hot *kasha*, which he called "crima-weets," he would say proudly, "Gude sairveecee ees gude beesiness!" And Koshenko, the brilliant helicopter pilot, who wanted so much to help or advise when news came that a United States

Navy 'copter had crashed in flames near McMurdo Sound.

The characters, the individuality, were there—just as in the Russia of old—everywhere except in the field of politics. Even there I sometimes heard sharp criticism of bureaucratic delays and poor planning. However, my over-all impression was that these men felt they were getting along well. It was hard to judge how they would have felt about political changes at home.

My assignment to this unprecedented mission came with little warning. In the summer of 1956 I had been doing my weather job in Washington for two years after returning from a one-and-a-half-year assignment in Hawaii and the far Pacific. Because I now had charge of all observation stations in our United States Weather Bureau, I naturally got caught up in plans for establishing stations in the antarctic as part of the IGY. The IGY was to last from July of 1957 to December of 1958. One of my Canadian friends, who had come to discuss the IGY plans, said, "You Americans sure do things big. Here you are, changing the year to eighteen months."

I had long been interested in the South Polar regions. My predecessor in my job had been on Operation Highjump in 1947. Three of my close friends had been with Byrd's first expedition. The continent was remote, promising a fine sea voyage. And finally, it was a vast blank area in our weather charts for the world. Who could say what significance it might have in forecasting the world's weather? But my own chances to go seemed remote.

Then, one hot day in August, Dr. Harry Wexler, chief scientist for the United States antarctic program, asked me to come to his office. Out of a clear sky he said, "How would you like to go down there and work for the Russians for a year?"

My jaw must have dropped. After a minute I said, "Harry, you aren't sending me to Siberia, are you?"

He laughed his machine-gun sort of laugh and said, "Why, no. I think you'd have a wonderful year." He went on kindly to say he thought I'd do a good job; that I could get along with all kinds of people, from coal heavers to aviation executives—why not with the Russians?

I realized this was a serious offer. I was excited, but doubtful—chiefly because I knew no Russian. You can't very well work under antarctic conditions through an interpreter. You'd freeze before a paragraph was translated. It's hard enough to talk outdoors anyway, with the wind howling at sixty m.p.h., with blasts of icy particles cutting off your words almost before you can speak them. I said I would think it over. Harry suggested I think fast, and start boning up on Russian, because Soviet supply ships were scheduled to leave Kaliningrad in October. He added that their government and ours, after minor diplomatic maneuvering, had agreed that such an interchange of scientists would be helpful to both nations.

After thinking it over I decided to take the job, but I repeated my doubts about the language difficulty. They said many Russian scientists speak English; besides, I could start at once on cram courses in Russian, using records, texts and a special instructor.

I worked and studied. There were unaccountable delays. September, October and November came and went. During that beautiful fall in Washington I sometimes regretted (Continued on Page 88)



"Part of the secret
is imported Dutch cocoa"

says Elsie, the Borden Cow

You can tell at first taste that there's something special about this chocolate ice cream. It's made with cocoa imported from Holland... for flavor that's rich and true.

And then you'll discover another part of its secret...crunchy, butter-toasted almonds—in every creamy spoonful.

This is *the* ice cream flavor of the month. Don't miss it. Get Borden's Dutch Chocolate Almond Ice Cream in half gallons or pint cartons where you see the Borden's Ice Cream sign.

If it's Borden's, it's got to be good!



Borden's

Milk • Fine Cheeses
Ice Cream • Starlac



See Borden's TV show, "Fury" over NBC.

© 1958, The Borden Co.



Winterize your car...



Summer-ize your driving with DOLE THERMOSTATS

Enjoy summer driving all winter long. No worry of frosted windshields, no icy chills... just the pure delight and deep-down comfort of warmth within. A good thermostat also means a sweet running motor... fast warmup, reduced wear, savings in gas and oil.

Winterize now! And be sure of the very best, specify a Dole Thermostat... installed as original equipment on 17 out of 18 top passenger cars.*

See your favorite service station or repair shop.

*As listed by Automotive News.

THE DOLE VALVE COMPANY

6201 Oakton Street
Morton Grove, Illinois



Enthusiastic Sportsman Says:

"Back Aches Gone!"

"Futuro Sacro Brace gives me the support I need, yet lets me move freely," writes J.C.O. of Munhall, Pa.

For wonderful relief from sacroiliac strain, get Futuro Sacro Brace at your drug store. Or write: Jung Products, Cincinnati 2, O.

**FUTURO
SACRO BRACE**



DOWN COMFORTS Beautifully RE-COVERED

Also Wool Comforts Re-Covered and Feather-Fluff Comforts Made from Heirloom Featherbeds. Write for FREE samples of covers, pillows, testimonials and picture folder. No salesmen — 1958 Mail order only! ALDEN COMFORT MILLS—SP Box 6070 Dallas, Texas

fast relief!
COLD SORES
LIP-A-EZE
CHAPPED LIPS
FEVER BLISTERS
SUNBURNED LIPS

FREE...
send request to
RODEHEAVER HALL-MACK CO.

152 Ninth St., Winona Lake, Indiana

(Continued from Page 85) my decision, but I kept studying. My Russian instructor was a severe-looking old colonel who had served under the Czar. He filled me with further doubts. Knowing nothing of my assignment, he warned me gravely of the dangers of going to the Soviet Union. The Reds, he said, had destroyed all the values and individualities of Mother Russia.

This, repeated daily, was not reassuring. I began almost to hope the whole project would blow over and be forgotten. Then came word that all was arranged. Passport, visas, credentials, letters were hurriedly assembled. And so, on December 11, 1956, old friends were waving good-bye at the Washington airport. I was off for a plane trip of some 9000 miles to Capetown, via London, Johannesburg and Pretoria. In all these cities there were stopovers long enough for me to visit with friends and fellow MET men (MET means meteorological—pertaining to weather). One of the rewards of being a MET man is that you have cronies in all friendly parts of the world. Even if you have never met them, you know them by radio, by letter, by their reports, researches and forecasts.

Even my friends en route were not comforting. They told me how they envied me this wonderful adventure—then went on to say that, of course, I might be brainwashed or drowned in vodka. One lady advised me to carry a gun. I parried that by saying I was afraid of guns. As for brainwashing, they did indeed wash out with laughter and helpfulness many of my prejudices; I hope I washed out some of theirs—prejudices against each other as nonpolitical humans, that is.

The twenty-seven-year-old Russian ship Kooperatsia, which was due to pick me up about December seventeenth, did not reach Capetown until December twenty-fifth. This gave me eight days to meet new friends among weather people and consular officials. Luckily it also gave me a chance to go aboard the little 1500-ton Jap icebreaker, Soya, then in harbor. She was carrying the Japanese expedition to the Antarctic. Next day I was guest of Dr. Takeshi Nagata, the expedition's chief scientist, at a Christmas holiday dinner and party, along with their explorers and scientists. They lacked the American and Russian equipment and polar experience, but they were keen, tough fellows, eager to exchange ideas and plans about the Antarctic. It had been forty-five years since Japanese explorers had discovered Kainan Bay, the new site for the big United States scientific base at Little America V. They were generous hosts, lavish and urgent with both Japanese and Western liquors. The Japanese stayed in port for several days and thus had a chance to meet the Russian expedition when the Kooperatsia arrived.

The Japanese and Russians were to meet later under almost disastrous circumstances. This happened nine or ten weeks after Christmas. The Soya, staying on dangerously long at the Barrier to help complete the Japanese base, did not start north until early March, 1957. Winter was now closing in fast. The little ship was soon trapped in the wide, thickening ice pack which clogs the seas around Antarctica. Her engines and light tonnage were helpless against the crowding floes. Her low freeboard made her situation desperate.

Now the powerful Russian icebreaker Ob, already well on her way northward from the Russian base—and my base—at Mirny, got the news by radio. She turned back at once to steam to the rescue—thus going nearly 1000 miles off her course. She smashed through the long miles of pack ice to the Soya, turned, and

cleared a path for the little Japanese ship to escape in her wake. Both ships then proceeded north to refuel at Cape-town, where they put on a notable joint celebration.

As between two peoples whose governments had tangled them in so many bloody battles in the past, this brotherly incident of 1957 was a heart-warming one.

I joined the Russian expedition on December 26, 1956—as mentioned earlier—and began meeting the men who were to be my companions until March 4, 1958. Boarding the small passenger-refrigerator ship Kooperatsia—"Co-operation"—I was uneasy, troubled by lingering suspicions. The captain welcomed me in what seemed strangely loud, commanding tones. I learned later that he was a most courteous man, who spoke loudly that day because he thought I could not understand him over the babble of other voices in his cabin.

I learned, too, that he was a competent and responsible commander. Whatever his duties as host, he drank with restraint. His head was always clear for any emergencies; we had some as the heavily loaded ship plunged through the terrific storms of the "roaring forties" and the "furious fifties." These latitudes are where the subzero winds from the pole, meeting the warm air from the tropics, habitually generate storms and waves seldom seen in northern waters. Personally, I was often scared and wondered whether the captain could bring us through safely. He did.

I was introduced to four men who were later to become my close companions and friends. It is interesting, looking back, to realize that I somehow misjudged all four at our first meeting. They were Vladimir Kunyn, Oscar Krichak, Semyon Gaigerov and Dr. Peter Shoumsky.

Kunyn, an older man than the rest—about fifty-five—was to be my interpreter, adviser and cabin mate on the voyage down. He was a swarthy man, with a sharp, intelligent face. His eyes were curiously penetrating. It was a face of many moods. He was wearing a neat gray business suit. Even at Mirny he commonly wore an old business coat, blue plaid scarf and an ordinary wool cap. In spite of his friendly, helpful manner, I must confess that I was uneasy with him at first. I had a feeling that he might be watching me. This soon passed, and I came to count him as one of my warm friends.

My meeting with Oscar Krichak, who was to be my superior at the base, was

pleasant but misleading. We were in the music saloon, where Krichak had been saying good-bye to some of the Japanese visiting scientists. I tried to speak to him in Russian; we had all had a drink or two. Krichak said, "But why do you say good-bye?" I objected, insisting that I was just arriving. Krichak thought this was uproariously funny, and I laughed too. I liked him at once, but he seemed a bit frivolous for a scientist. His wit enlivened our table throughout the voyage. It annoyed me that I couldn't enjoy his jokes firsthand. He carried a fat little Russian-English dictionary in his baggy white sports pants. He would thumb through it furiously, trying to explain his stories to me in English. Later I learned to enjoy them without pained explanations.

Semyon Gaigerov, whom I met at dinner the first evening, was a MET scientist. I was struck by his resemblance to photos of Khrushchev. He was courteous, and tried to make me feel at home by urging me to eat more of the—to me—strange and unpalatable food, greasy cabbage soup, fat garlicky sausages and unidentifiable mixed vegetables. He was not conventionally good-looking, though his face was obviously intelligent. I sized him up as rather shy and colorless. Many a time later I was to say to myself, *Semyon colorless? Good Lord! If he had any more color he'd drive us all crazy with wonder and horse laughs.* And when I met him, what did I know of his record-breaking, reckless, and scientifically valuable free-balloon flight that started from Moscow and landed near Afghanistan eighty-four hours later? Or of his shrewd critical sense about drama and the movies?

On Shoumsky, top scientist aboard, my first guess was not so far astray. I took to him at once, possibly because he spoke English, slowly but correctly. He was attractive-looking, though untidy at the moment, unshaven and wearing a soiled, rumpled white suit. I knew nothing, of course, of his scientific versatility, his tough physical hardihood and qualities of leadership in time of crisis.

I mention these four not because they were exceptions. There were scores of others, from manual laborers to top command—individuals and individualists—who gradually over the months erased my naïve impression of Russians as mass-produced, unthinking robots. It just isn't so.

This was the happiest discovery of my long stay (Continued on Page 90)



"You'll notice she hasn't touched that piano since my last warning."

THE SATURDAY EVENING POST

(Continued from Page 88) among them. It is good to know that Russians have not been squeezed out of the human race, or humanity out of them. I hope the Russians back home may also recognize that Americans are not mostly proletarians (toiling masses, unemployed) or multimillionaires (degenerate). If they do, and we do, in time, there is a fair chance we won't all kill each other off.

During the party given to welcome me as a member of the expedition, I began to think my uneasiness about Kunyn might be unfair. This was the third night out from Capetown. A group of the leaders and I started off with a half dozen toasts in the captain's cabin. A dozen kinds of wines and liquors; a dozen kinds of hors d'oeuvres—black and red caviar, smoked salmon and sturgeon, salads and the rest. After a few rounds, Kunyn, who was helping me to follow the crescendo of Russian jokes and eloquence, began tugging at my sleeve. "Eat, eat. You must eat!" he whispered. He handed me black bread loaded with caviar. I gulped it down, grateful for his advice, and felt less lightheaded.

To make things livelier, Captain Jantselevich got out some new jazz records he had bought in Capetown. These made me feel more at home. Then we went down to the big dining saloon, where the rest of the party had been awaiting us. The tables were decorated with sturdy, silver-topped bottles of champagne, cognac and the disarmingly clear vodka. Everyone smiled and sat down. The corks began to pop, and in a few minutes a hush fell over the room. Shoumsky rose with his glass and spoke some serious, friendly words, and we were off.

Due to Kunyn's kind warnings, aided by what remained of my own caution, I realized I must propose my own toast quickly before the faster drinking tempo made me woozy. I rose resolutely to my feet. I had been mentally preparing a few sentences in Russian, thanking my hosts for their hospitality, and praising the purposes and prospects of our co-operative endeavor. Haltingly I repeated these. Loud applause and some stifled laughter. The Russians seem genuinely grateful to any foreigner who at least tries to learn their language; they were also highly amused at my accent and choice of phrases. But I could feel friendliness behind the laughter.

Altogether it went off better than I expected. I was able to last out the evening, get back to the cabin under my own steam, and join the others for breakfast in the morning. I could feel a thawing of the atmosphere, an easing of the restrained courtesy. Russians I had not even met would give me a warm smile or a friendly touch on the arm as we passed in the corridors. I felt better—until the next party, and the next, and the next. They love parties, and have an astonishing power to recuperate from them.

Unfortunately, New Year's was just around the corner. Judging from the preparations and talk, it promised to make my reception party seem tame. But the weather had it otherwise. We were in the middle of the roaring forties by this time—and they were not roaring but screaming. I had never seen such waves. So the leaders announced that the New Year's Eve celebrations would be postponed until we got into quieter weather.

Soon the quieter seas did come, and with them the postponed celebration. My party practice hadn't been in vain; I sailed through this one with flying colors—including my "brilliant" dance with the gay waitress.

Very few of the Russians aboard had ever been in Antarctica, so they were keen to find out what I knew. After all,

the Americans were old hands at antarctic explorations. So I was called upon a number of times to help answer one question or another. On most of these I had little to offer. One of these questions, however, caught my fancy.

Having worked on aviation weather since 1932, I immediately fell in with the pilot group on the ship. They, having little to do until they reached the base, were bored. I was a new diversion. One of them got the grand idea that they ought to try to fly entirely around the antarctic continent! No one had ever done it before. It would be risky, which would add to the fun. And think of all the parties, and of all the interesting people you might meet on the way, stopping at the main bases of other expeditions. So they pieced together the sections of their big antarctic map, laid it out on the grand piano in the music saloon and started figuring. Obviously, none of their planes could carry enough fuel to do the whole flight. This is where I came in. What aviation facilities and fuel did the Americans have at their bases?

The only information I had was a report made months before by Adm. George J. Dufek, commander of United States Navy Task Force 43, at one of the international meetings in Paris. Every day for a week the arguments, plans, figures and speculations flew around the ship as the pilots flew on paper. Then the whole thing died away. They probably knew all the time it was an impractical venture. But they had had a lot of fun arguing about it, seeing the whole of the vast continent in their minds' eye. Before the year was over, they were all to get pretty sick of flying over nothing but never-ending whiteness at sixty, seventy and even eighty degrees below zero. But they and their mechanics did a first-class job; in 3500 hours of flying, in all months of the year, there was not one engine failure—a fine record under such conditions.

Despite such pleasant interludes, it was a difficult voyage. I used often to think of home—of my little steel-coal home town of New Castle, Pennsylvania, and especially of my mother's wonderful meals. I dreamed of Washington in the fall—goodness, only a few weeks ago. And the little restaurant and cafeteria on H Street, near Jackson Place; as much good food as you wanted and no more. And the girls, pretty and neat, with their crisp dresses and cheerful chatter. I even at times wished I were with those nice Japanese aboard the Soya. They liked to drink, too—but at least they were more my own size.

Then, as we began to get into colder, calmer weather, things were better. We all broke out our parkas and other cold-weather gear, paraded in it and com-

pared notes. I think many of the Russians had been homesick, too, from the eagerness with which they showed me pictures of their wives, their children or the finest girl in the world. Much like Americans in this.

By this time, I had my own little group of special friends. Finally I felt sure enough of my Russian to start occasional little language courses. My Russian grammar was a 1930 edition, and my friends got a lot of fun out of some of the old Russian words, now rarely used.

Soon we were just off the edge of the ice pack, headed eastward and searching for a soft spot to get through to the continent. It was a thrill when one of the big Ilyushin 12's came roaring over at low altitude to give us the latest information about the ice. During the night the seas became strangely quiet. When we looked out in the gray morning, the answer was obvious—we were in the pack ice, with the big icebreaker Ob shoving a path for us. When a red helicopter came chopping out to hang around and wave at us, we knew we couldn't be far from Mirny. Seals raised their sleepy heads, and the little Adélie penguins rushed over the ice floes to greet us—and then rushed as wildly back to the far side when we approached. We were there.

Our storm-battered ship Kooperatsia set its ice anchors in the heavy sea ice a mile off the base at Mirny the night of January 10, 1957.

Here was the focal point for a many-pronged thrust into the secrets of Antarctica. Here were the headquarters, the port, airdrome, radio center, hospital, laboratories and shops—and even a piggery—that would serve the 180 men wintering at Mirny and the five other Soviet stations scattered over East Antarctica. Here, I was to work as a full-fledged member of their meteorological group, charting and analyzing daily reports of upper air conditions from other bases.

The Mirny base had come through one winter—March to November, 1956—laying the groundwork for the big push during the IGY. Men who had wintered over were bursting to see old friends, or even casual acquaintances who had come to replace them. Many of my friends went "ashore" to see what was in store for them for the next year and came back with optimistic reports.

Some said they had seen my room. When was I moving in? I didn't know; when I was invited, I supposed. Once again, my earlier doubts surged back. Was there really a place for me? Or were they waiting to see what I was like before committing themselves? So I stayed on the ship, feeling a bit lost and out of

things, as everyone else was working night and day to get all their equipment and supplies onto shore as quickly as possible. The old crews were eager to get us off the ship, so that they could move on and get started homeward. Most of them had already had enough of "Antarkteedya."

On the fifth day word came that everything was ready for me. A weasel would come to take my gear at nine P.M. Everything was packed in foot lockers and duffel bags, except my new felt hat. The only thing I could do was to wear it. As a courtesy, I went up to say good-bye to Captain Jantselevich, only to run into a dinner party for Alexei Troshnikov, leader of the expedition for the coming winter. I had met him earlier on the Ob. The captain insisted that I join them; don't worry about the baggage; the boys can take care of that. It was three hours later—midnight, with the sun just touching the ice sheet to the west—before Troshnikov stood up abruptly and indicated the party was over. I trudged off to camp with him in the face of the bitter forty-to-fifty-mile wind that usually pours off the icecap at night. I heartily wished my hat were back in the Washington shop where I had bought it. Troshnikov took me directly to my new room. There were all my things, neatly stowed away. The men who had brought them two hours before were still waiting to see if there was anything more to be done.

As I got to know the Russians better, I was surprised to find that, in many ways, they are more like Americans than some of our old friends and allies, such as the British and the French. They resemble us in their high spirits, their optimism; in their broad humor, high jinks and practical jokes; in their sentimentality, and in their openly expressed warmth of family feeling. They, like us, are inclined to believe that nothing's impossible—the sky's the limit.

Like us, they love bigness, big projects. My Russian colleagues were as excited as I about the Sputniks and our satellites. After each failure to get our satellite launched, they would reassure me by saying that they, too, had probably failed several times before the first one got off successfully. They were sure the United States would get one up soon. But they could not conceal their pride in the fact that their satellites were so much bigger than ours. I don't believe they were thinking of the military implications in the CBM field. They were just glorying in bigness.

Both peoples have in them a streak of recklessness. They like to gamble, to "let her roll," to try anything once. One Russian expression is, "What's the matter, friend—are you afraid to die?" This is matched by our old military cry: "Come on, you S.O.B.'s—do you want to live forever?"

Of course, there are also profound differences between the two peoples, which I often noted at Mirny. Most Russians, for example, have a fatalism rare among Americans.

The following happenings, human, tragic, dramatic, seem to me to illustrate not only this fatalism but other Russian qualities, good and bad. In judging these events and characteristics, remember that my companions at Mirny were above average in ability, stability and hardihood.

One of the expedition's prime objectives was to establish two scientific stations for the winter, on the high interior plateau—one at the south geomagnetic pole; the other at the so-called "pole of inaccessibility"—the point most remote from the sea. This was in some ways tougher than

(Continued on Page 92)



(Continued from Page 90) the American project of a winter station at the geographic South Pole many hundreds of miles away. In fact, the mercury was later to fall to 110 below zero at one Russian station, compared to 102.1 at the American polar station. Since this involved sending a tractor train 850 miles inland into places and conditions unknown to man, time was of the essence. A few weeks' delay might plunge the tractors into impossibly bitter weather. And delay was what they got.

They should have left Mirny before the end of January, but two disasters intervened.

The Kooperatsia and the Lena, sister ship of the Ob, were now nosed in close to the Barrier, so that vehicles could move direct from the ships to the icecap. One day hundreds of tons of ice, breaking from the clifflike Barrier, crashed down on the Lena. She was able to pull away without sinking, but quantities of valuable equipment on the decks were smashed, and several men were injured and hurled into the icy sea. The water there was about thirty degrees—two below the freezing point of fresh water. Frantic, valiant efforts were made to get all the men out in time, but two died of shock and cold. Ten minutes in such water is usually fatal.

Despite the time urgency for starting the tractor train, the Russians spent days of time and labor in cutting tombs into the rock of a nearby island and preparing elaborate funeral rites for the two young sailors. These rites had no religious—certainly no overt religious—significance. Put them down to pure sentimentality if you will, or to half-forgotten ancestral tradition, or to human regard for comrades killed in line of duty, or to a sense of tragedy and drama. From a strictly practical point of view, the bodies could simply have been left in a natural freezer and returned home in the cold-storage rooms of a supply ship leaving within weeks.

However you analyze it, I found the ceremonies dignified and moving. Strong Russian sentiment had prevailed over the Russian time sense. The great wooden platform they had built, the new coffins on their red carpeting, the catafalque drilled into the rock—no effort had been spared. Everybody who could leave the base and the ships was there. The leaders spoke, honoring the young men who had given their lives in this great scientific venture for the benefit of mankind. Friends of the deceased said their words of affection and regret. Then twenty sailors, lined up on the crest of the rocks, raised their rifles toward the setting sun for the final salute.

Then came an incongruous and tragicomic interruption of the solemnity. A great array of Adélie penguins, birds as curious as monkeys about humans, had waddled close to watch proceedings. With their own dignity, and their own natural evening dress, they seemed part of the ritual. But the penguins had not reckoned with rifle fire. At the first volley, squawking with terror and anger, they flapped and tottered away in panic.

On the whole, it was impressive. But, as Americans say, time was awasting. And another disaster caused still greater delay. One night several colleagues and I were putting some of my American records on magnetic tape, so that they could enjoy them at the interior stations during the winter months. Suddenly there was a loud clanging noise—a beating on the iron cylinder hung outside the mess hall as a fire alarm. I thought it must be a joke, but my companions instantly threw on their heavy clothing and dashed out, grabbing fire extinguishers as they ran. I



On Cartwright's birthday, August 14, 1957, the Russians gave the U. S. meteorologist this cake decorated with a map of the Southern Hemisphere and Antarctica.

followed. On the roof of the big new barracks house near the sea I saw an ominous red glow—spreading. It was well below zero that night. Worse, the wind was blowing off the icecap at fifty m.p.h.

I started over to help, but soon I saw I could do nothing. What they needed was not men—they were already moving in long silent lines like monks huddled in their hooded parkas—but water, the scarcest thing in the antarctic. I can still hear them shouting, "Vodee! Vodee!"—"Water!" Buckets and barrels of water were rounded up from every building. It vanished on the now raging flames in little puffs of steam. All fire extinguishers had long since been emptied. Still they fought on, suffering burns and frostbite as they tried to drag out precious pieces of equipment. In two hours only embers were left of the building. Luckily the wind had been blowing from the icecap toward the sea. If it had veered, the flames might have destroyed other buildings.

The fire was partly the result of Russian faults: carelessness in setting up a temporary stovepipe; lack of foresight in not providing far more fire extinguishers and fire-fighting equipment. But I was more interested in their reaction to this real disaster, for the base could not function at full strength throughout the winter without this building. They did not moan or cry or call for investigations to fix responsibility. One and all they said, "Nichevo, nichevo"—"It's nothing"—"We will rebuild it." And so they did, most of the

manpower of the base whirling in with terrific drive and energy. It was typical Russian reaction to disaster: don't weep—work. It goes far back into their history.

It was magnificent, but nearly three more weeks of precious time slipped by. It was late February before the last tractor party left Mirny for the interior—a time when most expeditions huddle down into bases for the winter. "Nichevo, let's go"—out into the unknown with temperatures falling to new lows each day. By mid-March they still were struggling forward, floundering into unexpectedly powdery snow which seemed to have no bottom. It was seventy below now. The treads of the big 450-horsepower tractors were not wide enough to support them in the feathery snow. They spun and sank to a stop. Ski-equipped planes, sent in from Mirny with extra fuel, couldn't get back off the surface.

Such conditions caught the Russians by surprise. They knew the arctic—that was home. But what they knew of the antarctic was, as with most of us, taken mainly from books. Good books, but by authors and explorers who have seen only traces of this vast continent. Now it was eighty below, with the real winter hardly begun.

The failure was humiliating to the Russians. But they faced it and made their decision—to stop and dig in where they were. This caused great debate and many recriminations. In my opinion the decision was right. If they had pushed on, it

might have meant great suffering or even risk of death to the men without any real scientific gain. I saw the men who came out, their hands and faces now terribly swollen with frostbite.

That experience, caused partly by the Russian stubbornness and lack of time sense, showed also great hardihood and courage verging on recklessness. What struck me most was their ability to admit their mistakes and learn from them. They did a lot of thinking that winter, and when things began to warm up the next summer, in November, new equipment was coming in—big tractors with much wider treads and turbo-compressors; better sledges; more and larger planes for round-the-clock flights to move fuel and supplies to the tractor parties. But even before this fine new stuff had arrived, the tough veterans of the desperate March effort, not to be outdone by machinery, had set out again in October, with their old, hard-worn equipment. This time they could not be turned back. With gallant effort they reached the neighborhood of the geomagnetic pole, 850 miles in from Mirny, and 11,500 feet high on the continental plateau.

They were followed by the new trains and new equipment. On December twenty-sixth, one year after I boarded the Kooperatsia at Capetown, I watched the new train depart—the largest overland train ever to set out in the antarctic.

It was something to see. Ten powerful tractors, twenty heavy sleds and thirty-two men, assembled on the clear, fresh plain of ice west of Mirny. They listened to the encouraging words of their comrades and leaders. Red and green signal rockets arched in the deep-blue sky. Ten engines started with the smooth roar of expert maintenance. Soon the train, now stretched out for half a mile along the gleaming ice, disappeared over a low swell and started the long climb into the interior. Beautiful, and rugged. For the next ten weeks or so these 32 men would know nothing but the lurching, deafening life of the tractor train; increasingly bitter cold, even thinner air at the higher altitudes, and always sleeplessness, snow and sky. They made it to the world's coldest spot shortly before the really paralyzing cold set in. And they had the privilege, as the winter got really chilly, of experiencing weather at 110 below zero, the lowest ever endured by man in recorded history.

In talking of the desperate hardships mentioned above, I don't want to mislead you. Those of us who operated in or near the Mirny base experienced no such perils. Low temperatures were not our problem. Even in winter the mercury never fell below minus forty, Fahrenheit. It was wind and snow and a screaming void filled with millions of tiny icy barbs that kept us on edge. When that was blowing down off the icecap at nearly sixty m.p.h., as it would do for weeks at a time, life was difficult. Then the 200-yard trip from quarters to mess hall was the toughest obstacle course I ever tackled.

I found my Russian co-workers remarkably adaptable to these ordeals. They seemed to accept them without a second thought. But even their patience would sag after a week or so of such blizzards. Then the weathermen would become the target for complaints. Evidently a rugged sense of humor is as essential for the Russian forecaster as for those of any other country.

My only really serious unpopularity with the Russians came from an unexpected source—a penguin egg. The big eggs of the emperor penguin were one of the few mementoes to be found in the antarctic. Our conservation-minded commander had issued an order that no eggs were to be

(Continued on Page 94)

(Continued from Page 92) taken from the penguins. But the big emperor birds were somewhat stupid. They often lost the egg they were carrying on their webbed feet as they shuffled over a ridge of snow. These lost eggs were fair game and most of the men had one or more. I got three and, unusually busy at the time, put them aside for a few weeks. One day I got around to preparing them for permanent preservation. The usual technique was to drill a tiny hole in each end of the thick shell. Then by inserting a straw in one end, you could blow out the perishable

contents, wash the shell and fill it with paraffin.

But I had overlooked the effects of time and temperature. The egg was rotten beyond my imagining. When I blew it out into the basin, I was almost asphyxiated. The odor was incomparably worse than the rottenest chicken egg I ever encountered. The mess seemed almost to vaporize, permeating my clothes and the room. It drifted through the corridors and into the other rooms. I, who had secretly suffered under the powerful smells of drying boots and sweaty socks in the washroom

at night, had now created a stink so stupendous that it made these seem as sweet as attar of roses.

For a little while the fiasco of the egg dropped my popularity rating with the Russian comrades to its low point. But soon all was forgiven and I was admitted to the parka-clad, heavy-booted chorus line, singing in one of the camp's burlesque shows.

Such entertainments seemed uproariously funny to us, but it's hard to judge. Anyone who has been one of a group or battalion in a remote, hard-pressed situa-

tion knows they make the best audience in the world for any humorous escape from the grinding pressure. So with us at Mirny. I think I am objective in saying that we had, among the Russians, comedians, actors and humorists good enough for stage or television.

Semyon Gaigerov, the aerologist and rash balloonist, was a master of subtle satire and bold burlesque when the mood hit him. My boss, Oscar Krichak, the witty MET man and master chef of the penguin omelet, was ready for fun at the drop of a fur hat. He organized, trained and directed an enthusiastic little orchestra called the Icicle, which led most of our revels.

Canny Vladimir Kunyn, who knew his way around the base as well as he did about the ships, was a master storyteller, even in English. But the new physician, Solomon Schleffer, could top anything I had ever heard. What amazed me was the number of stories which, though different in setting, played on the same set of human frailties and faults as do our American jokes. They were a miracle tonic in themselves, especially for the psychosomatic ills of subzeroism.

We had a great deal of good music. On average the Russians are more devoted to music than we are. They sing well in groups. The 150 deep male voices, surging through the tragic folk songs of old Russia, and the rousing songs of the Red Army, are pressed into my memory.

We also had movies several times a week. Some were starkly realistic Italian or gay French films. Most were Russian films. When the propaganda outweighed the artistic side of these films, the men were often critical. Some of the better films—old Russian classics or stage dramas—were superb. Their version of Shakespeare's Twelfth Night is the finest I have seen on the screen, with all the leading players masterly in their parts.

In February of this year, after completing my assignment in Mirny, I boarded the Kooperatsia and sailed for Australia.

On March 4, 1958, as Kooperatsia was loading grain before continuing on to the U.S.S.R., I said good-by to my many friends. Could the associations so pleasantly and profitably begun be continued? My stay at Mirny had not been all cold and wind, ice and isolation. There was much scientific work and learning that should be valuable to us in the United States in future.

But the human companionship was to me most interesting of all. From my long and perhaps uniquely intimate association with the Russians, I have drawn a strong sense of optimism about our future. I found them a group still in the fresh blossoming of a new technology, excited by feelings of great accomplishments and the promise of unending discovery through science. The spirit of pioneering still runs strong.

What can we learn from the Russians? Above all else, I think we should strive to avoid the sophistication, the tendencies to overconfidence and even arrogance which now seem to tinge some of our attitudes and actions. We need to relearn some early American lessons many of us have forgotten, such as the pleasures and values of solid workmanship, of rugged health and the simpler life.

I had a clear feeling that my Russian colleagues admired the Americans for many of our qualities of strength; for our scientific and technical skills; for our good humor and vitality. If the clouds of political conflict ever can be lifted, I am confident that as peoples we can get along with each other. Then millions of Russians and Americans might find satisfaction, as I did, in working together toward mankind's common goals. THE END



Shown: Chair, \$8.95.* Table, \$11.95.* Set, \$47.75.* Others from \$41.75.* Serving Cart, \$19.95.*

Cosco "fashionfold" - a grand slam in style!

• This is folding furniture for the woman as discriminating in her home furnishings as in her wardrobe. "fashionfold" table legs are smartly flared, have hidden locks, no unsightly braces. Chairs have contour-curved backrests and all-steel, comfort-cushioned, saddle-shaped seats. Bonderized, two-coat, baked-on enamel finish in ebony or metallic tan. Washable, stain-resistant upholstery. Choice of tables, regular or king size; four chair styles. All in such good taste . . . at leading furniture, hardware or department stores. Select yours now for elegant entertaining.

HAMILTON MANUFACTURING CORPORATION • COLUMBUS, INDIANA



Wide color choice in antique leather or tweed pattern upholstery



COSCO for every purpose—every purse!

Utility Tables and Carts from \$6.75.* Stools from \$5.45.* Step Stools from \$9.95.* Room Dividers from \$13.95.* Juvenile Seating from \$8.45.*

*Slightly higher Colorado and west.