

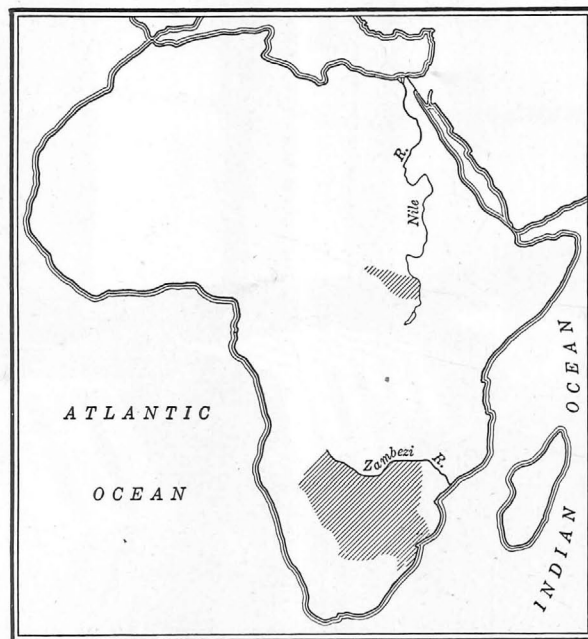


HOBNOBBING WITH THE WHITE RHINOCEROS

BY C. R. S. PITMAN

IN the Uganda Protectorate, where I have had long experience as game warden, is to be found a thriving colony of the rare white rhinoceros. This great placid creature, so much less truculent than its cousin the black rhinoceros, is now completely protected by law in Uganda. In 1925, 1926 and again in 1928 a census of the species was taken. Approximately a hundred and fifty individuals were counted in the two earlier years and twenty less in 1928. We hope that the total at the next census will exceed all previous estimates. It may indeed very well be claimed that these white rhinoceroses of a tiny district of Uganda west of the Albert Nile and others of small portions of the adjacent Sudan, Belgian Congo and possibly French Equatorial Africa are almost the last members of a magnificent species which, not so very long ago, was to be found in thousands in South Africa but which is now practically extinct there, being represented by not more than three dozen and possibly less than a score of individuals.

A glance at the map will show the peculiar discontinuous distribution of the white rhinoceros, in its two groups, which, though they differ only slightly, are known as the northern and southern races respectively. The southern race, now on the verge of extinction, was long the only one



The patches show the discontinuous former distribution of the white rhinoceros. The southern race, once numerous, is on the verge of extinction

known. It is truly astonishing that, of the thousands of white rhinoceroses that must have been killed in South Africa by Europeans, less than a dozen skulls remain in museums for scientific study, and authentic records of size, weight and length of horns are almost equally rare. The existence of a northern race was first indicated by Sir Samuel Baker (discoverer, in 1864, of the Albert Nyanza), but it was not until the year 1900 that Major A. St. H. Gibbons obtained the first skull from the Lado Enclave, then Belgian territory. Other travelers and sportsmen followed—notably the British Major P. H. G. Powell-Cotton and, in 1909–1910, members of the Smithsonian African Expedition, under the direction of Colonel Theodore Roosevelt. The specimens they collected are now available for measurement and study. At various times white rhinoceroses have been reported to exist in the Karagwe district and other areas of the region intervening between the habitats of the two races, but each has been proved to be a case of mistaken identity, the animal seen or collected being a black and not a white rhinoceros. No white rhinoceros has ever yet been kept in captivity, so far as I know. In view of the rarity of the species, it is imperative that we should, as opportunity offers, acquire as much material as

possible for scientific purposes and at the same time take the needful steps to protect the animals in their natural haunts.

The white rhinoceros is a much milder and less aggressive creature than the other African species, the so-called "black." Time and again my helpers and I, when studying white rhinoceroses at close quarters, have had them walk right up to us, so close in fact that it has been considered necessary to have at hand some deterrent such as a piece of wood, a stone or a lump of earth. We never carried a rifle and we never had the slightest trouble, though we were careful to dissuade the great beasts from coming so close that a frightened sweep of the head would have brought us within horn reach. That will suggest how we literally hobnobbed with them. And at times, when it was found necessary to throw some missile to turn a white rhinoceros or make it halt, it was really most entertaining to see the hurt look on its face—expressive evidently of what it felt at the rejection of its friendly advances.

It seems that these huge animals are naturally so placid and inoffensive that they cannot understand any other living creature's not being well disposed toward them, and as a rule—except where they have been

molested—they show no fear of man. Sportsmen often refer to them, because of this characteristic, as "dull-witted," thereby, I think, doing the creatures an injustice. Further, they have poor vision and, like the black rhinoceros, are inquisitive. I can well imagine a novice, who, for the first time, sees a white rhinoceros turn and trot toward him, visualizing out of sheer ignorance the commencement of a charge. But in my own experience, as well as that of elephant hunters of renown who have been especially commissioned to study the habits of this animal, there has not been encountered a single instance of hostility. I am inclined to believe that the majority of reports on its supposed truculence are due to lack of acquaintance with its habits, coupled with fear.

Nevertheless there are on record various authenticated cases of aggressiveness. Probably the best known is that of W. Cotton Oswell, in South Africa, who had the horse he was riding disemboweled by a horn thrust delivered by an enraged cow. I am not prepared to dispute his story nor that of a sick officer who, when being carried in a litter in the West Nile district, was forced to take refuge in a tree and was kept there for no inconsiderable period by an infuriated rhinoceros. It is, however, surprising to learn that, during the very brief



While C. R. S. Pitman was photographing seven white rhinoceroses, the old bull of the group always placed itself nearest the intruder. Finally, evidently satisfied of his peaceful intentions, it came right out in the open and posed. There it stands, head lowered and hump showing up conspicuously, pig eye fixed on the camera, tail tightly curled and a cattle egret on its back



When Captain Pitman first saw the seven white rhinoceroses, they were all lying down, but they stood up in response to the noisy cries of alarm uttered by several dozen cattle egrets and a few slender-tailed crows. They were most reluctant to leave the comforting shade of patches of bush and scrub and never moved farther than a couple of hundred yards at a time. For an hour and a half they allowed themselves to be photographed

stay of the Roosevelt expedition in the white rhinoceros habitat, members of the party were charged on no less than two occasions and both times were forced to fire and kill—in self-defense. In each case the charge was made by a cow accompanied by a calf and was not exactly unprovoked, since endeavors were being made to secure photographs. Yet at the present day there is a general absence of such nervousness culminating in hostility, and I can only conclude that formerly the animals were suffering from the effects of being unduly molested and were displaying a viciousness foreign to their nature. The fact that the Roosevelt expedition found numbers of weathered skulls of recent origin would tend to support the theory of persecution.

Another more recent instance concerns a white rhinoceros that blundered toward a shooting party and was shot at and wounded, after a bullet over its back had failed to turn it. It was shot on the assumption that it was one of the black species; and the testimony of the natives present upheld the plea of self-defense. Subsequently, when followed up, the creature was found lying under a tree, and it got to its feet and determinedly charged its pursuers before it was killed. Who would feel like blaming it?

It is not difficult to suggest reasons for aggressiveness. I am of the opinion that charges are likely to be made only by cows heavy in calf or accompanied by tiny calves, wounded animals or bulls in the rutting season, at a time when they fight savagely and frequently get knocked about terribly. During one such fight the combatants squealed loudly all the time; on another occasion a big bull, evidently just after an epic struggle, appeared wickedly gashed and in a very miserable state.

In addition to its less belligerent nature, the white rhinoceros possesses several pronounced external characteristics by which it may be distinguished from its smaller so-called "black" relative. Color, however, can hardly be named as one of these distinguishing characteristics; for the hue of the two species is much the same—a dirty gray. "White" is a complete misnomer. I have been told that this description originated from the corruption of a Dutch term for "bright" or "shining" used in South Africa, no doubt in reference to the smoother hide, which at a distance on the sunny *veld* would appear almost to shine in contrast with the dull-surfaced, rougher skin of the black species. Whatever the derivation, the name "white" has remained to confuse for all time the field observer and sportsman. Actually the white rhinoceros is grayish, varying from black to earthy-brown, dull whitish or even deep red, according to the color of the wallows in which it has been disporting. It is distinctly lighter than its black cousin, though as seen in the field it exhibits no apparent difference in hue.

At the present day, however, there is no opportunity of comparing the two side by side in the natural state. In South Africa, years ago, black and white rhinoceroses mingled freely and occurred plentifully in the same areas. But in the limited region where the northern race of white rhinoceros is found, the black species, so far as has yet been ascertained, is absent. The Nile appears to act as an impassable barrier; the white occurs on the west bank and the black on the east. The distribution of this species is almost everywhere bounded by rivers. It is curious that in the case of the black rhinoceros similar geographical barriers exist, though only locally, indica-

tive on the part of these great beasts of a strong aversion to crossing large rivers—a trait probably attributable to a fear of drowning.

Among living land mammals, the white rhinoceros is exceeded in size only by the African and Indian elephants; it is reported to be at least half as large again as its black relative. Edmund Heller, who accompanied Roosevelt to the Lado—and who is now assistant curator of mammals at the Field Museum, Chicago—is inclined to believe that the size of this creature has generally been greatly exaggerated. He states that the majority of the specimens secured in the course of the Smithsonian African Expedition, as well as most of those set up in various museums, do not exceed a height which is attained in many instances by the black species. In this connection Roosevelt suggested that height measurements, in the past, may have been erroneously taken to the top of the hump rather than the shoulder. Although I have not actually measured the specimens I have studied in the field, my observations, made during periods of many weeks at a time, have convinced me that the old bulls, not to mention some of the mature cows, are indeed mighty beasts. I am of the opinion that the fully adult bulls I have observed have invariably exceeded 6 feet at the shoulder, and, in some cases, I have no reason to believe a calculation of 6 feet, 6 inches to be excessive. Personally I should be extremely reluctant to discredit the figures recorded by some of the well-known hunters of the past.

But the size of the white rhinoceros is not the surest means of recognition. Primarily there is the huge square mouth, from which it derives its sobriquet of "square-lipped," so different from the mouth of the black with its prehensile upper lip. But I should hesitate to recommend reliance on this feature for identification in the animal's grassy, scrub-dotted habitat—at least with the naked eye, even at close quarters. The immense square base of the front horn, as opposed to the rounded base in the black, is another well-marked difference not easily discernible until a specimen is actually handled. The ears, which in the black are nearly hairless, are in the white thickly fringed—almost tufted—and much larger. The tail, in the black, when the animal is agitated or alarmed, stands erect, but in the white it is curled in a loop over the back. In the white there is almost complete absence of the dermal folds which are such a characteristic of the other African species. Also, as one would expect, the feet are larger, and there are structural differences in the two species.

But the most prominent distinguishing feature is the enormous fleshy hump on the nape of the neck, just forward of the withers, which is absent in the black rhinoceros. This hump is much accentuated through the habit of carrying the head low, a habit possibly due to the great bulk and excessive length of the head. Any one who has endeavored to photograph the creature in its grassy haunts will know how irritating this can be; I have waited many weary hours for white rhinoceroses to raise their heads and afford a clear view, not to mention having lost scores of otherwise golden opportunities. Having to contend with stray stems of tall grass, which constantly ruin rhinoceros pictures, is bad enough without the drawback of the drooping head. When the animal is at rest, the chin is actually on the ground. The hump is less conspicuous when the head is not unduly depressed.



The mild white rhinoceros is not white at all but a dirty gray—much the same color as its truculent so-called “black” relative. Its huge square lips, so different from the prehensile upper lip of the black, the square base of the front horn, the fleshy hump on the nape of the neck just forward of the withers, the habit of curling the tail in alarm, are distinguishing characteristics

The young white rhinoceros has a curious trait not found in any other animal: it always walks ahead of its parent. As the cow moves with lowered head, it guides its offspring with its horn, which is often laid alongside the youngster's flank.

A conspicuous peculiarity in the horn growth, apparently confined to some cows, in extreme cases gives the creature an exceedingly odd, not to say grotesque, appearance. The anterior horn, instead of curving backward as usual, turns forward, and the tip of a horn of this type soon comes into contact with the ground because of the animal's habit of carrying the head so low. Horns with a forward pitch are by no means uncommon; it is unusual for the observer not to come across a few instances when traveling through the white rhinoceros habitat, though so far I have been unable to secure a photograph of one. A cow has been noted with a very long horn, approximately 28 inches of which curved back in normal fashion, surmounted by a further 12 inches on a forward sweep. The points of long horns of this type are in constant contact with the ground when the animal is feeding and soon become worn flat on the outer surface.

Many of the longer, normally shaped horns I have seen—particularly from bulls—have had much-flattened sides, as if they had been worn down by frequent rubbing against hard ant heaps and mounds. Posterior horns are remarkably short and stumpy and usually much compressed at the sides. From the Lado the maximum length of horn recorded is $45\frac{3}{4}$ inches, and the longest horn that has passed through my hands in recent years—from an animal either killed by poachers or found dead—measured $42\frac{1}{2}$ inches. Both were from males. From Bahr el-Ghazal a cow horn of 38 inches is recorded, and from the Belgian Congo one of $37\frac{3}{4}$ inches. But horns exceeding 40 inches are nowadays rare and probably were never common, and those of 30 inches and more are not so common as one would expect.

Horn measurements of the northern race are completely eclipsed in the very scanty records that exist of the southern: Gordon Cumming possessed wonderful examples—both cow—of $62\frac{1}{4}$ and $56\frac{1}{2}$ inches, and C. G. Schillings, the German naturalist-explorer, mentions one of 81 inches.

One cannot normally expect to differentiate between the black and the white rhinoceros from the spoor, but

there is a characteristic of the white rhinoceros—a very marked one—which so far I have not found recorded in any textbook nor among the various descriptions of the beast and its ways, yet which is, for the purposes of accurate identification, infallible. It concerns the nature of the droppings; though Roosevelt mentions a difference, he does not say what it is. In composition the droppings of the black rhinoceros are not unlike those of small elephants on account of the similarity in food and browsing habits. But in the case of the white rhinoceros, since it is a grazer and solely a grass-feeder, the droppings are black outside and horselike, resembling on a large scale those of a Clydesdale out at grass. There can be no question of the origin of any reasonably fresh dung of this type.

The white rhinoceros does not resort daily to well-used middens to the same extent as the black, doubtless because of its more wandering nature. But I have come across and photographed many such middens, most of which bore direct evidence of the fact that this species, in common with the black, for reasons best known to itself, is addicted to the practice of scattering its dung, presumably by backward strokes of its hind legs.

Many curious incidents have attended my efforts to photograph the white rhinoceros—probably none more irritating than what happened once when I found myself

on one side of a small bush with a fine bull on the other, not ten feet away. Each time it craned forward to have a look at me, I took, as I thought, a picture of its comical expression. I was doomed to disappointment; for a little later I discovered that the dark slide had not been withdrawn and I had wasted ten exposures!

Another time I spent more than an hour and a half in taking pictures of a group of seven white rhinoceroses during the heat of the morning, after eleven o'clock. Like many other creatures of the wild, white rhinoceroses usually sleep most of the day in some comfortable, shady place and rove about in search of food and water at night. These animals, when I first saw them, were all lying down but were soon made aware of my approach by the noisy cries of alarm uttered by several dozen cattle egrets, or tick birds, and a few slender-tailed crows. They stood up but showed no desire to leave their shady refuge and, when the birds had become quiet in consequence of my remaining in concealment, one by one laboriously lay down with grunts of obvious satisfaction. Such behavior takes a person not aware of their peculiarities completely by surprise and makes him want to burst out laughing.

Later, when the animals were on the move, the old bull of the group objected to the attentions of the egrets; when numbers tried to settle on (*Continued on page 470*)



Like most of the white rhinoceroses encountered by Captain Pitman in the course of his duties as game warden of Uganda, these two were placid and fearless. To get them to their feet he whistled, threw lumps of earth at them, hooted and tapped a tree with a stick but all in vain. When they finally moved, they showed no sign of running away until he walked right up to them

our sense of decorum was not offended—and protective tariffs without murmur.

No statutory law prohibiting birth control clinics exists in Japan. Yet the situation has grown more and more serious with every year. Unemployment among the educated class has become alarming, and discontent among college graduates has run higher and higher. Japan looks around and sees huge tracts of land, unoccupied and unused, yet closed to Japanese exploitation—Siberia, Manchuria, Mongolia, French Indo-China, the Dutch East Indies and New Guinea, to say nothing of Australia. The Japanese people do not entertain the slightest intention of increasing their territories, but intelligent Japanese frankly feel that economic nationalism without proper provision for international helpfulness does not give a nation like Japan a fair chance of alleviating its domestic difficulties.

Amelioration of the plight of the masses of Japan depends in a profound measure upon the adoption of new enlightened international policies by the leading powers of the West. If a far-sighted policy of economic assistance among nations is not worked out in the Pacific, the plight of the bulk of the Japanese population will continue to grow worse, and this will eventually push the middle class and the farmers toward socialistic labor views, creating a strong labor party, like the British Labor Party or the German Social Democrats. The dominant note of Japanese politics will gradually change from liberalism to socialism, and the country will be alienated from close cooperation with western liberal countries and will be pushed toward a new combination of eastern powers. In addition, through the present reawakened interest in Orientalism in Japan, a new culture and philosophy apart from those of the Occident will evolve. The fact that Japan holds a strategic position in the Western Pacific will profoundly affect the future unfolding of the world drama in the twentieth century, which is unmistakably going to be the drama of the Pacific Ocean.

THE WHITE RHINOCEROS

(Continued from page 451)

his back, he bucked and bounded like a playful youngster. It was necessary to keep a wary eye on the calves, which—nearly full-grown—were gamboling ponderously about, since there was always the possibility that they might blunder into me by accident. The animals were most reluctant to leave the comforting shade of patches of bush and scrub and never moved farther than a couple of hundred yards at a time. The bull always placed itself nearest the intruder and at last, evidently sure of my peaceful intentions, came right out into the open and deliberately posed. The result can be judged from the picture—there it stands, head lowered and hump showing up conspicuously, pig eye fixed on the camera, tail tightly curled and a cattle egret perched on its back. I was using a large camera, and I approached so close that the bull completely filled the view-finder. It seemed that a carrot only was necessary to complete the scene; then I should have probably found it feeding out of my hand!

On another occasion I had the utmost difficulty in bringing to their feet a pair of adults that I came across lying down. In vain I whistled, threw lumps of earth at them, hooted, tapped a tree with a stick. They raised their heads, peered in my direction—and that was all. At last they did get up, not as a result of my efforts but because one of my gun-bearers, who had heard the frequent whistling and thought that he was wanted, walked carelessly over to me—in light-colored clothing—in full view of the recumbent creatures. Even then

they were not inclined to move, and I secured many pictures of their various attitudes until eventually, when I walked right up to them, they turned tail and fled.

Although as many as a couple of dozen white rhinoceroses may be in sight at the same time, such a concentration is a result of chance rather than intent. The largest number I have seen herded together is seven—a large bull with a massive horn, three cows and three practically full-sized juveniles. Among other combinations I have come across two cows, each with a tiny calf, cows with single calves of all sizes upward from newly born, solitary bulls, pairs, a bull and two cows, three bulls and two practically full-grown juveniles not long, it seemed, on their own.

I have often seen fresh tracks of white rhinoceroses that had walked during the night through the center of villages. Once a pair had followed an unnecessarily tortuous trail, brushing against the close-packed huts. Again, three had climbed a steep hill, gone through a narrow entrance into the fenced-in compound of a resthouse on a cliff overlooking the Nile, walked around the building and departed by a gateway on the opposite side. Their seemingly aimless wanderings are a constant source of perplexity to any one who has endeavored to investigate their habits or follow their tracks. Indeed to the uninitiated the tracks that are often seen in a restricted locality suggest the presence of dozens of animals.

It is on such faulty data that entirely erroneous and optimistic estimates of the numbers of the white rhinoceros are based. One investigator, who had been much puzzled by the extreme frequency of tracks compared with the numbers of animals actually seen, determined to solve the problem and, when he was traveling the bush parallel to the Nile, along a broad highway across which he observed rhinoceros spoor passing to and fro, he and his men followed the spoor in detail and discovered that they had all been made by a group of three rhinoceroses, which were actually moving in the same direction as he. His journey took him twelve miles along that road, and the spoor crossed and recrossed it throughout. His experience demonstrates clearly how little reliance can be placed on the counting of tracks in estimating the numbers of the animals.

When the census was taken of the remnants of the race in Uganda, particular care was exercised to avoid the possibility of counting the same animal twice, and the number of tracks seen was ignored. The procedure was the same whether a couple of Europeans were collaborating or only one was working with reliable native assistants. The district was toured exhaustively, and, at each place where either native information or rhinoceros tracks indicated the presence of the animal, investigators went out simultaneously in opposite directions and recorded only what they saw. I am confident that the results are fairly accurate.

In the process of taking the census of the white rhinoceros valuable information was acquired not only with regard to its status, but also with regard to its general habits, local movements and seasonal migrations. The last two are governed by such factors as food-supply, water, grass-burning and excessive length of grass, which the white rhinoceros apparently dislikes. Conditions of drought do not necessarily drive it to the Nile; in fact all available evidence tends to show that it avoids going to that river to drink. It requires not so much running water as mud wallows, and an absence of mud wallows or pools in semidried watercourses quickly drives it out of a locality. It is also partial to rolling in sandy river beds. Local movements account for a great dis-

crepancy in numbers by areas, though not in the grand total found.

Though investigations have been made in regard to the rate of reproduction, we appear as yet to be very much in the dark on this all-important subject. No specimens have been kept in captivity, and there are few data available in regard to fetal specimens taken from cows which had calves at foot. Fortunately Powell-Cotton has one such record and Heller another; the latter dissected a female that had been accompanied by an almost full-grown calf and found a large fetus to which she would soon have given birth. This evidence to a great extent bears out my own calculations, based mainly on observation of the numbers of juveniles of various sizes with particular reference to those that were known to be newly born or not more than a few weeks old.

The conclusions I have come to are that calves accompany their dams till practically full-grown, that bulls do not normally run with a cow and calf, that a calf remains with its dam till the birth of the next calf, when number one is evidently turned away, and that the next calf does not usually arrive until the first one is practically full-grown. With elephants I have seen as many as three and possibly our juveniles of varying sizes accompanying the same cow, but I have never observed more than one youngster with a white rhinoceros, whether the calf was newly born, nearly half grown or at any intermediate stage. There is still an appreciable gap in the chain of evidence, which must be filled before it is possible to assert with any accuracy how rapidly successive calves appear. The closing of this gap is dependent mainly on the rate of growth of juveniles—another subject on which authentic evidence is practically nonexistent. In view of the comparatively slow growth in the case of juveniles of the black species, it is not unnatural to assume that growth is equally slow in the white. My own idea is that there is a period of several years—up to six or even seven—between successive births, though I am open to correction, and I prefer to underestimate, rather than overstate, the rate of reproduction. The period of gestation in the black is supposed to be sixteen to eighteen months, and there is no reason to believe it would be less in the case of the white.

For those of us who care about the preservation of the species it is a satisfaction to know that maturity in the cows, in so far as breeding is concerned, is attained at an early age: Roosevelt killed a female in which the last milk molars were still in use, although it was accompanied by a half-grown calf, and Powell-Cotton obtained two cows—both parents—in which no milk molars had been shed. Females, when adult, are rarely seen without a calf. Our investigations suggest that calves are dropped about the end of, or early in, the year, just after the annual grass-burning, when the countryside is swept by fierce conflagrations. The young at birth are no more hairy than the adults and are small enough to pass under the low-hanging belly of their dam.

I have never shot a white rhinoceros; nor have I had any particular inclination to do so—much less after experiencing its docility in its natural state. In the course of lengthy acquaintance with the creatures of the wild, one usually finds that with each species there is associated some outstanding incident. One recollection of the white rhinoceros will remain vivid even when my hunting days are over and Africa itself may be but a memory. It was too dark for photography as I watched three great bulls grazing near me. The sun was setting behind a cloud while they slowly wandered from a vast expanse of grassy flats up a scrub-covered hill. Suddenly the sun burst forth,

and, silhouetted against the huge red orb on the point of making its nightly plunge over the distant horizon, was one of the trio, picturesque, prehistoric and alert, to me a sad sentinel, symbolic of a noble creature standing on the threshold of extinction.

HONORABLE FIRECRACKER

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with very considerable misgiving on my part.

When everything was running smoothly, I informed Pon that I was going home to Seattle in order to sell the products of the factory. I cautioned him not to permit smoking or the presence of matches in the factory and to be careful to keep the building clean. Human life is cheap in China, but any serious explosion would have to be accounted for to the British.

When I had been at home less than a month, I received a cable reading: "Factory blew up thirty girls killed Pon ran away send Priestley." The cable was signed "Win Wa Kee." Who Win Wa Kee was (Pon's cousin, as I found out later), or why he might be interested in our enterprise, I had not the faintest idea. Of course, in China the name of a firm has nothing to do with the name of the proprietor. His name may be Wa or Woo or Lee, but the name of his firm is probably "Ten Thousand Brightnesses" or "Eternal Felicity" or "Sundevouring Dragon." I cabled to a friend of mine and received confirmation of the report. There was nothing to do but catch the next boat for the Orient.

In Hongkong, Ah Duck met me and gave me the news. Yes, it was all true. One corner of the factory was blown off. Yes, thirty girls were killed and buried. Yes, Pon had run away to his village at a place back of Canton.

"What caused the explosion?" I asked.

Ah Duck put an imaginary cigarette to his lips, lighted it with an imaginary match and uttered a big "bang." No other explanation was necessary.

Ah Duck said that on the day of the explosion a devil had been seen entering the building and that, as a matter of fact, he was still there, looking for victims. Something had to be done since the local villagers were in a state of terror. One of our Chinese stockholders confirmed this idea and agreed to make the arrangements for getting rid of the devil.

Next day I found myself at the damaged factory in company with two Taoist priests, who were to perform the ceremony while I served as acolyte. Ah Duck explained what I had to do. The two priests, dirty and unkempt, spoke no English and looked at me with a malevolent expression.

The first thing was to heap up thirty small piles of stones, each containing a few sticks of joss. Every pile represented a victim. My task was to light the joss. Then the priests cut the throat of a black dog and caught the blood in a dish. Acting under their instructions, I took this blood and with a small brush painted some Chinese characters on the door of the factory. I did not know what the characters meant, because I copied them from a piece of paper supplied to me by the priests, but, as nearly as I could tell from Ah Duck's explanation, the writing was to protect the local village people from the devil.

The next thing was the most important. I had to go to the door of the room where the devil was confined and open it. For a reason that I did not discover till later, no one would accompany me on this mission. I found the door but could not open it; so I had to smash in one of the panels. The devil was supposed to come out of this hole. When I returned and reported what I had done, the priests appeared satisfied and packed off with their goods and

chattels, but Ah Duck was melancholy. It was some time before I could learn the cause. Then he explained that, when the devil came out of the room, he took the first man he met and that I was sure to be dead in a week.

While Ah Duck watched me anxiously from day to day, I was busy with the practical aspects of the affair. I had to pay thirty dollars for each girl who was killed, a sum that I considered quite reasonable. The British officials were very courteous but suggested that our operations should be removed from the Crown Colony of Hongkong.

Where, then, was Pon? It was impossible to make another start without him. Ah Duck found him, but Pon was in mortal dread of the red-faced Britishers. He sent me a letter, saying that he would meet me in Canton. There was nothing for it but to humor him.

I was in favor of establishing a factory in Macao, because I had had some dealings with the Portuguese officials and I believed that conditions were more stable in Portuguese than in Chinese territory. But I was overruled. Some of our Chinese stockholders said that wages were lower in the Canton area, that there was a bigger supply of labor and that the "squeeze" paid to the government officials would not be heavier than in Macao.

I think no foreigner ever explored Canton more thoroughly than I did. We selected a place across the river on a large, well-settled island called Honam, which was under the military administration of a general called Po Fuk Lum. We interviewed him and laid our case before him. He refused his consent for a few days until he could investigate our financial standing. When this was settled, he charged us so much a month for "protection."

We secured a large warehouse and a very large courtyard, and, since we were allowed a free hand, I erected sheds of bamboo and palm leaves. These were enough to keep out the sun and rain but, in case of fire or explosion, would not be so dangerous as heavy brick and stone buildings. The factory was large enough to accommodate seven hundred workers and was built in a week. As a matter of fact, this was rather slow time on account of the number of doors I insisted on having as a safety measure. I arranged to have one door for each six girls, and all doors were to swing out instead of in. This is the only way to hang doors in a factory where there is danger of fire.

As soon as I felt that the factory was getting along well, I returned to Seattle. It was almost a year before I received another cable from Win Wa Kee: "Pon kidnaped come at once much trouble." I knew that there were disturbances in Canton. Chen Chiuning had driven Sun Yat-sen out of Canton, and the savior of his country was now in the foreign concession of Shanghai. Before he left, there had been fighting, and a large number of buildings had been burned in Canton. Piracy was rampant, and neither life nor property seemed safe under the new government.

To my surprise Pon met me on the dock upon my arrival in Hongkong. He had a hair-raising tale to tell. When Sun Yat-sen was evicted, the general in charge of Honam took advantage of the turmoil and sent two hundred soldiers to our factory to act as guards against rioters. The string attached to this apparently magnanimous offer was a charge of a dollar a day per man. Two hundred dollars a day was six thousand dollars a month. The author of the scheme was the highbinder Po Fuk Lum. It was, of course, confiscatory.

So Pon closed the factory, and the soldiers retaliated by burning up our raw materials. Pon was chased away and took a small boat to the Canton side of the river, which was less

than a half-mile distant. The rower was a woman, who evidently gave some kind of signal when the boat was in midstream; for a large junk manned by pirates came and took Pon and carried him about ten miles down the river and held him for ransom. A letter was written to his friends in Hongkong asking for ten thousand dollars and containing a pleasing postscript to the effect that, if they did not pay the money within one week, his captors would cut off one of his fingers each day and mail it to them. When the supply of fingers was exhausted, they would then start on his toes.

Pon knew the general features of the scheme and at the end of six days began to fear what would happen next. He was confined in a heavily shuttered upper room; the pirates occupied the ground floor of the building. That night he discovered in some rubbish a metal hook known as a frog hook and, as its name implies, used for spearing frogs. With this he began work on the shutters. About midnight he had them open and climbed out of the house. He got down to the river without being discovered and, relying on an old ladder to hold him up, since he could not swim, dropped into the river and finally drifted to the other side. He had succeeded in getting back to Canton, but now, what with Po Fuk Lum and the pirates, his nerves were shattered and nothing would persuade him to leave Hongkong.

I went to Canton and crossed over to Honam to see what was left of the factory. I found that some of the soldiers had been smoking near the powder magazine, which had promptly blown up, taking six Chinese soldiers to whatever eternal reward was in store for them. The soldiers had burned up most of the boxes and paper, but the chemicals could still be salvaged. I went to pay my respects to Po Fuk Lum. He received me with an unctuous smile but would explain nothing. Since Canton was in a state of uproar, I decided that we had better start a new factory in Macao under the protection of the Portuguese.

I immediately opened negotiations with the Portuguese Governor, who referred me to the chief of police. By liberal use of the necessary "palm oil" I got a temporary permit to operate in Macao with the understanding that a permanent brick factory would be built. I objected to the bricks but could not make arrangements for a light structure. So I got all the chemicals I could salvage from Canton, and in about three weeks we were ready to start operations again. I found the Portuguese officials amiable and apparently much pleased with the idea of a factory controlled by Chinese and Americans. Dealing with an American was for them a novelty. They seemed overwhelmed by my methods; it would take at least three months, they explained, to secure the necessary permits. I almost paralyzed them by getting everything arranged in three days. I managed it by waiting on each official and refusing to allow him to pigeonhole any necessary documents. I believe that Macao had not had such a shock in all its existence: I merely sat and sat in a man's office until the only way he could get rid of me (as he did with a sigh) was to affix his signature and bow me out. I got Pon started again, but he was so nervous that he took every opportunity to sneak back to Hongkong. When I left him in charge, after about a month of staying around Macao with him, I presented him with an automatic pistol to bolster up his courage. Since smuggling arms into Hongkong is strictly forbidden and Chinese found in possession of firearms are imprisoned, I took good care to make the transfer under the Portuguese flag.

The next summer I returned to China to