

THE INDIAN RHINO FACES EXTINCTION

By E. P. GEE

NATURALISTS are greatly concerned about the diminishing rhino population of India. Many centuries ago these creatures existed in almost all parts of the sub-continent of India and Pakistan. It is recorded that in the 16th century they lived in the Punjab and as far west as Peshawar. Fossilised remains are to be found in the U.P., the Narbada Valley, Madras and other places.

About 80 years ago they were confined to Nepal and the north-east corner of India and were found in no other parts of the world. Here the thick, swampy country is most suitable for them, and they were quite plentiful. Read any book on sport written about that time and you will come across passages such as this: "Firing quickly, I wounded at least four . . ."; or, "We came across fresh marks of rhino, but being tired of slaughtering them, did not follow them up." Unfortunately such slaughter in the name of sport continued unabated, until at the beginning of the present century it was suddenly realised in India that rhino were becoming very scarce.

Two species—the smaller, one-horned or Javan rhino (*R. sondaicus*) and the Sumatran two-horned rhino (*R. sumatrensis*)—had become practically extinct, while of the Great Indian one-horned rhino (*R. unicornis*) only a few dozen survived in the more inaccessible localities. It was then that they were protected by law and sanctuaries were formed for their protection. Thanks to this timely step the largest species of rhino, together with buffalo (*Bubalus bubalis*), was preserved for the present generation, though the two smaller species are now believed to be extinct in India.

The question may well be asked, "Why do rhino suffer so severely at the hands of hunters and poachers, while other fauna such as elephants and deer survive in ever-increasing numbers?" The answer is two-fold. First, the rhino is a slow, clumsy creature, reputedly short-sighted, which always returns to the same place for its toilet. Sit up over a large heap of



A LARGE TUSKER ELEPHANT IS DWARFED BY THE TALL GRASS OF TYPICAL RHINO COUNTRY IN KAZIRANGA GAME SANCTUARY

fresh rhino dung, and the rest is easy, especially since it approaches the place backwards. Moreover, in the hot, dry weather, a rhino can be easily located if one knows the site of its favourite wallow.

The second reason is that almost all parts of the rhino are marketable. The meat is in great demand, and a Brahman may eat it. Even the urine is considered by some to be antiseptic, and is sometimes hung in vessels as a charm against evil spirits and disease. But the horn is the most treasured prize, for it has reputed aphrodisiac properties—famed throughout the East, particularly in China. Before the recent war, a horn was worth half its weight in gold, an average one fetching about £100. A skin was

worth £8, for various articles can be made from it.

Poachers knew no scruples when hunting for rhino horn. Pits were dug with bamboo spikes on the bottom, and were cleverly camouflaged on top. An animal would fall, become impaled and often be left to die. The horn was hacked or shot off and secretly disposed of. Any rhino found bogged in a quicksand suffered the same fate.

It was by this method, without the spikes, that the Forest Department of Assam have been catching young rhino in recent years for zoological gardens. In 1947 a half-grown male was sent to London, and is now to be seen at Whipsnade, where it appears to be doing



A FINE BULL RHINO



A COW RHINO WITH CALF AT HEEL

well. The next year a pair were captured and sent to Chicago, and last spring two more were obtained for the Cairo Zoo. After capture the animals are kept for a while in a small stockade in order to accustom them to human beings before their journey across the world. Within a few days they will take grass from one's hand. For some reason or other, the males are easy to deal with, whereas the females give a great deal of trouble at first.

Owing to strict protection in sanctuaries, the Great Indian one-horned rhino increased most satisfactorily. For example in the Kaziranga Game Sanctuary of central Assam the original dozen surviving in 1908 were believed to have increased to about 500 by 1937, when the sanctuary was opened to visitors for the first time. And in the Jaldapara Sanctuary of northern Bengal the 30 or so rhino in 1932 were reported to have increased to about 60 by 1947.

But the story to-day is not quite the same. Recent attempts to make a survey of the rhino population of this part of the world have produced discomfiting results. A commission of naturalists was invited last spring by the Government of Assam to enquire into the wild life of the province and offer recommendations. I was asked to join them at Kaziranga. We consider the reported figure of 500 rhino to be greatly exaggerated. It is more likely to be about 150. Whereas a decade ago any visitor to this sanctuary would have seen a dozen rhino in a brief morning's visit on elephant-back, nowadays he would be fortunate in seeing half that number. Dr. S. Dillon Ripley, the noted zoologist of Yale University, and Mr. Salim Ali, the eminent Indian ornithologist, who were the principal members of the commission, saw no rhino on their six-day visit to the Monas Game Sanctuary of Lower Assam, and the fresh tracks of only two.

It should be borne in mind, however, that anything like a proper census of animals in the sanctuaries of north-east India is impossible, owing to the nature of the country. Most of the terrain is covered with elephant-grass, often 15 ft. high. The amount of open spaces near beels (small lakes) and where the tall grass has been burned off to improve the grazing is infinitesimal. The rhino is largely a nocturnal animal and no lover of the hot sun, so when we did an aerial survey of Kaziranga last March at mid-day in the Governor's plane, it is understandable that we saw only 14 of them. The

remainder, an unknown quantity, were naturally under thick cover.

The danger confronting the survival of rhino nowadays is, I believe, not so much the hunter or poacher, as natural factors of a peculiar kind. As Hubback has pointed out, it appears to be a law of Nature that there is some fatal period in the life history of wild animals, when the continuing abnormality of a disturbed existence seems to break their spirit. For some unexplained reason, individual rhino now take to wandering out of their sanctuary into unsuitable, fodderless places, such as tea estates, or even towns and villages. Protection then becomes difficult. For example, one was killed

recently by a train some 50 miles from its sanctuary. Moreover, they are dying from diseases contracted from domestic cattle grazing in their vicinity. In 1947 the carcasses of no fewer than 14 rhino, which had died of anthrax, were found in Kaziranga. It is probable that many more died whose remains were never seen.

To-day the Great Indian one-horned rhino population probably amounts to fewer than 350 head, comprised as follows: Nepal, 50 (6 were recently shot by two Indian diplomats!); Bihar, 5; Bengal Duars, 30; Cooch Behar, 20; Assam, 240. The total for Nepal and India, 345. Assam's total of 240 rhino are believed to exist in these localities: Monas, 45; Sonai Rupa, 5;



DR. S. DILLON RIPLEY AND MR. SALIM ALI, MEMBERS OF A COMMISSION INVITED TO ENQUIRE INTO THE WILD LIFE OF ASSAM, FILMING A HALF-GROWN RHINO IN ITS WALLOW



THE FOREST BEAST OFFICER OF KAZIRANGA GAME SANCTUARY DIRECTS THE REMOVAL OF A YOUNG RHINO FROM A PIT DUG FOR ITS CAPTURE

A CAUSERIE ON BRIDGE

REVERSES AND REVERSALS

By M. HARRISON-GRAY

FOR years now it has been the fashion to speak of "Reverse" bidding as the ultimate in Bridge science. The text-books, ancient and modern, have dealt at great length with this subject. At least one authority appears to base the whole structure of his recommended bidding on the nature of opener's first rebid: he either establishes a super-forcing situation by reversing, or sounds the danger signal by denying "reversing values". There is, apparently, no such thing as a half-way hand or a "neutral" rebid.

Few ranking players in this country or America attach undue importance to a reverse rebid. North opens One Club, and South stretches a point to respond One Heart on the following:

♠ J 9 3 2 ♥ K 10 7 4 2 ♦ 9 6 4 ♣ 5
If North now reverses with Two Diamonds, the only commonsense course for South is to pass hurriedly. A game cannot be on, since North has denied the values to make the forcing rebid of *Three* Diamonds, and South has done more than his bit in finding a bid at all on his paltry collection.

But the following situation is somewhat different. South holds:

♠ ... ♥ Q 10 9 8 4 3 ♦ K 10 5 2 ♣ 10 6 5
North opens One Spade, and South—much as he fears a misfit—elects to bid Two Hearts; any other call with this distribution would be unthinkable. North rebids Three Clubs.

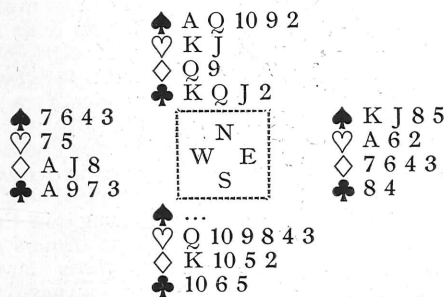
The term "reverse", like many others in Bridge, is completely meaningless. It has no connection with the bidding of suits in reverse order, i.e. a player does not necessarily have to bid a lower-ranking suit first in order to make a strength-showing rebid. In the sequence above, North's Three Clubs is a reverse because it compels South to express a mere choice for Spades at the high level of Three.

South here may feel tempted to use his discretion, like the responder in the first example, and pass Three Clubs while the going is tolerable. In this case, however, he would be very wrong.

Two considerations apply. One, the auction has taken such a course that North may be cramped for bidding space. To make a pukka force, he has to bid Four Clubs; this takes the partnership beyond the level of Three No-Trumps, which might be the only successful game contract.

Secondly, South's response at the Two level offers some encouragement. North is certainly counting on him to bid once more over the strong rebid of Three Clubs.

When this hand occurred, South elected to pass, arguing that he had cheated in the first place by suggesting at least 8 points with his Two-over-One response. This was unfortunate, for the full deal was as follows:

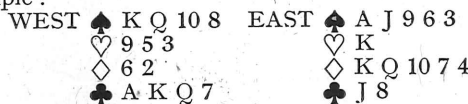


North, it will be noted, was fixed for a rebid. A jump to Four Hearts, to Three No-Trumps, to Three Spades or to Four Clubs were all unsatisfactory and misleading. Three Clubs, however, was technically flawless. By taking the bidding to the Three level, it virtually guaranteed a game; it postulated a good five-card Spade suit, since opener said in effect that he was prepared to play the hand for nine tricks in Spades if the best responder could do was to climb back to the first-bid suit; it might have paved the way for a successful Three No-Trump contract; and it offered the choice of a third suit in which the partnership might find the only fit for a game or slam.

As it happens, a rebid by South of Three Hearts would have been raised to Four and made without difficulty, against any but a very hot defence.

In practice, Three Clubs was defeated by two tricks. East led a trump, West played low, and North won with the King. After mutterings to the effect that Four Hearts was cold, North led the King of Hearts; in the light of this gratuitous information, East held up his Ace till the second round, continuing with his last trump. West played Ace and another, dummy winning with the Ten after North had unblocked. The Queen of Hearts was led, ruffed and over-ruffed. The Queen of Diamonds was allowed to hold, and as North had no more trumps and no entry to dummy, the defence took four further tricks in Spades and Diamonds.

As I said, there are several schools of thought on the subject of reverse bidding, but the various text-books have at least one feature in common. Once again, it is the old, old story of academic example sequences, of uninterrupted duets between North and South, with never a whisper from the opposition. The result is a spate of misunderstandings and calamities, of which the following is a fair sample:



West dealt with both sides vulnerable and

Orang, 10; Laokhowa, 20; Kaziranga, 150; and elsewhere, 10.

It will be seen that the main responsibility for the protection of the valuable, prehistoric-like rhino from extermination rests with Assam. With this object in view, the recent U.N.S.C.C.U.R. conference of U.N.E.S.C.O. passed a resolution urging the Government of India to take all steps to make Kaziranga a good and inviolate sanctuary, free from cattle trespass and other harmful influences.

Since the Kaziranga Game Sanctuary lies in the middle of the Brahmaputra Valley, on the main road and only one-and-a-half hour's motor journey from the regularly used airfield of Jorhat, it could easily be made into a National Park of great accessibility and popularity. It is only five hours' flying from Calcutta, and tourists from there could put in an evening and a morning visit to the sanctuary in the space of only two days, and see the rhino—and also buffalo, deer, pig and numerous other fauna and avifauna—in comfort and safety. It must be the earnest hope of naturalists the world over that both the central and provincial governments concerned will succeed in their important task of saving for posterity this unique and interesting creature.

opened One Club. North bid One Heart, and East made the delightful call of Two Diamonds ("so that I could reverse with Spades on the next round"). South passed, and West bid Two Spades. East was no believer in slam conventions or in wasting time; Six Spades was his bid, and great was his bewilderment when North doubled and cashed two Aces.

"But, partner—you *reversed* with Two Spades. You showed an enormous hand!"

"I had to bid something over Two Diamonds," pleaded West.

This led to a long and confused debate, but the other three players stuck to their decision that the one thing West could not do was to "reverse" with Two Spades.

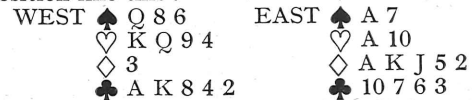
Poor West! He couldn't find the right answer.

His bidding was immaculate. He had opened One Club so that he could make the cheap rebid of One Spade over a response in a red suit. The text-books hadn't told him what to do if the enemy intervened and his next bid had to be made at a higher level. His card sense simply told him to make the cheapest possible rebid in this forced situation.

In other words, the only information conveyed by the bid of Two Spades is that West would have rebid One Spade over a response of One Diamond. Far from being a strength-showing reverse, his second call might mask a complete minimum opening.

It should be noted, however, that the situation would be different if South had bid Two Hearts over East's Two Diamonds. Since West was now free to pass if he held a poor hand, a voluntary call of Two Spades would have been a genuine reverse.

Similar muddled thinking is apt to occur in a position like this:



West, the dealer, opened One Club and East forced with Two Diamonds. West's rebid of Two Hearts was the signal for colossal excitement by East, the Blackwood interrogation being followed by a majestic final bid of Seven Clubs, with an unavoidable loser in the trump suit.

Again, the verdict was that West was the villain of the piece. What right had he to "reverse" with Two Hearts on a 14-point hand?

In fact West was only bidding his hand naturally and correctly: over One Diamond, he would have rebid One Heart; so why not Two Hearts over Two Diamonds? The cheapest bid in any forcing situation can never be read as a sign of positive strength.