

MEASURES GIANT STRENGTH OF BIG APES' MUSCLES

A chimpanzee is more than four times as strong as a man of the same weight, according to the results of experiments by Prof. John E. Bauman of Omaha University. Prof. Bauman induced several of the big apes in zoos in various parts of the country to pull a rope attached to a strength-measuring apparatus, and then had a number of football players at Augustana College, South Dakota, try their strength on the same instrument.

It was no easy task, Prof. Bauman states, to induce the chimps to make the pull. The best method seemed to be to get an ape of a mean disposition, who would haul at the rope in a fit of rage. Good-natured monkeys would merely play with it. One termagant named Suzette, at the New York Zoological Park, gave a good, hearty, two-handed pull that registered 1260 pounds, over half a ton. Later on she made another, without putting her full strength into it, marking up 905 pounds. Boma, a good-natured male, the largest chimpanzee in captivity, made a one-handed pull of 847 pounds. Johanna, a female at the Philadelphia Zoological Garden, got into an almost impossibly awkward position for her one-handed pull, yet registered 375 pounds, which is better than the average man can do with both hands under the best of conditions.

The seven football players tested by Prof. Bauman were all husky farm lads, most of them of Viking ancestry. Yet their best efforts fell far short of those of the apes. One-handed pulls did not in any case reach more than 210 pounds, and the best of the two-handed pulls fell a little short of 500.

Since the larger of the men weighed a good deal more than the chimpanzees, Prof. Bauman reduced his figures to a weight-for-weight basis, and then determined the ratio of ape-strength to man-strength. These figures showed that the gentle Suzette was from two and one-half to four and three-quarters as strong as South Dakota's finest, while Boma's strength outranked the human athletes' by between three and four-fifths and four and three-quarters to one.

A by-product of the experiments is an expression of the relation between the strengths of the apes themselves. On a weight-for-weight basis, Boma is one and a quarter times as strong as his female companion; and taken as he is, outweighing her considerably, he is a little over one and one-half times as strong. "It is of interest to note," adds Prof. Bauman, "that the figures of 1.24 for relative and 1.52 for absolute superiority in strength are very common ones for human couples."

But although man is greatly inferior to the apes in muscular power, he appears to hold his own very well as compared with other animals. Prof. Bauman says, "Taking a comparative view we find that, making the necessary allowances for difference in stature and amount of cross-section of muscle in proportion to body weight, man compares favorably with many, probably with most, other animals. We rank considerably above the hoofed animals, and the oft-cited strengths of the beetle and ant, when duly corrected as just indicated, appear to be materially less than our own."

Beets, turnips, carrots, and parsnips frequently send their roots down 10 feet in search of water.