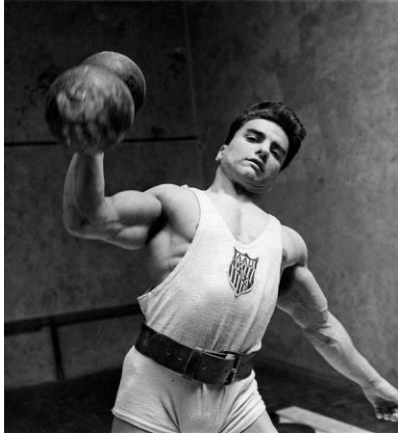


# WORK/ENERGY/POWER

Units 10 & 11 , Dr. John P. Cise,

Professor of Physics, Austin Com. College, Austin Texas, USA, [jpcise@austincc.edu](mailto:jpcise@austincc.edu) & NYTimes June 27,2018 by Richard Sandomir

## Chuck Vinci, Olympic Champion Weight Lifter, Dies at 85



**INTRODUCTION:** Lifting weights takes work(W). To lift weights the work done is transferred into gravitational potential energy  $U = m g h$ .  $W = \Delta U + \Delta K$   
Assuming no change in KE ,  $W = \Delta U$ . In the English system the units of work and energy are in ft. lb.. In the three events listed below he made three lifts = 755 lb./3 = 251.67 lb./lift.

**QUESTIONS:** (a) Find the mass (in slugs) of 251.67 lb. during each of the three lift?  
(b) Find the work done per lift of three feet?, (c) Find TOTAL work done making all three lifts?, (d) Find TOTAL gravitational potential energy after picking up 755 lb. three feet?

**ANSWERS:** (a)  $m = 7.865$  slugs, (b) Work/lift =  $\sim 755$  ft. lb., (c)  $W_{TOTAL} = 2265$  ft. lb.  
(d)  $U = 2265$  ft. lb.

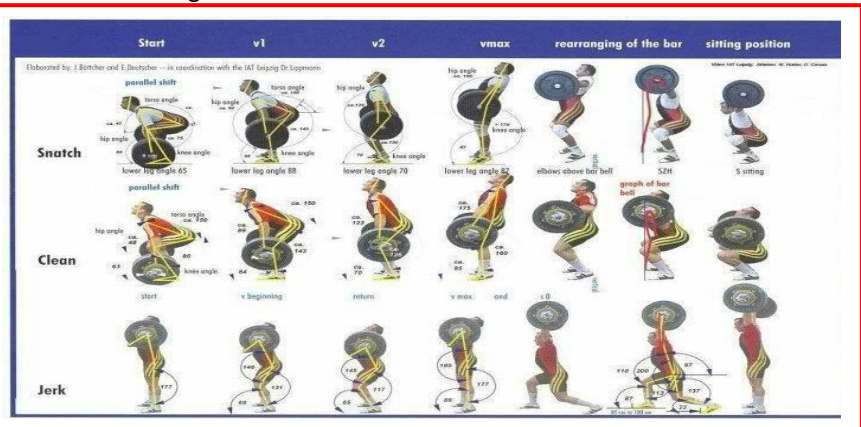
**Chuck Vinci working out at a Manhattan health club** in 1958 in preparation for a contest between American and Russian weight lifters at Madison Square Garden. He is considered one of the greatest weight lifters ever; at just under five feet, **he was also one of the smallest.**

**Chuck Vinci**, a former shoeshine boy from Cleveland whose gold medals in weight lifting at the 1956 and 1960 Summer Olympics were the last to be won by an American man, died on June 13 in Westlake, Ohio. He was 85. His son Curt said the cause was congestive heart failure. "I used to dream of just having state records," **Vinci told The Associated Press in 1988.** "The will of the Lord came through." Vinci (pronounced VIN-see) achieved far more than glory in Ohio. He is considered one of the greatest weight lifters of all time. He was also one of the smallest: **At just under five feet, he competed in the 123-pound class.** One of his nicknames was the Mighty Mite. He developed his extraordinary chest and bicep muscles through long workouts at a Y.M.C.A. in Cleveland after World War II and later, as the 1956 Olympics in Melbourne, Australia, drew near, at a weight-lifting club in York, Pa., sponsored by a barbell manufacturer. **"He was a high-energy guy who trained all day, with no pauses,"** said Art Drechsler, a former weight lifter and chairman of **USA Weightlifting**, the governing body of the sport in the United States. "He trained on everything to build himself up." By the time he arrived in Melbourne for the Summer Games, Vinci had won the United States national championship three times and the silver medal at the world championships a year earlier. But before the Olympic competition began, he faced a problem: He was seven ounces overweight. He ran and did jumping jacks, to no avail. Finally, a haircut lopped off enough of his long, thick hair for him to make weight.



### COMMENT:

This is quite amazing. Vinci's weight was almost half(123 lb.) of the weights he lifted....in this case 251.67 lb weights. In all three events he lifted 755 lb. as stated below in the article.



Vinci, left, congratulates the new world weight lifting champion, Vladimir Stogov from Russia, in 1955 in Munich.

At the Royal Exhibition Building, Vinci faced Vladimir Stogov of the Soviet Union, who had defeated him for the world championship in 1955. But this **time (((Vinci lifted 342.5 kilograms (about 755 pounds) on three lifts (the clean and jerk, snatch and press).)))** Stogov lifted 337.5 kilograms (744 pounds). Vinci **won the gold medal.** At the Olympics in Rome four years later, Vinci was the favorite, and he delivered. Lifting 345 kilograms (760 pounds) — a new Olympic record for a bantamweight that also tied a world record — he won the gold medal, defeating Yoshinobu Miyake of Japan and Ismail Elm Khah of Iran. Vinci in 1958. "He was a high-energy guy who trained all day, with no pauses,"