## MASSACHUSETTS INSTITUTE OF TECHNOLOGY

March 1, 1960



Pegasus -- grounded in the foundry



Crucifix (left), Duca (right)

# TWO MEN ON A HORSE

The horse weighs 400 lbs and stands  $2\frac{1}{2}$  ft. high in the Metallurgy Department foundry. A bronze figure of Pegasus, it's the result of a revolutionary technique of statuary art casting, first such innovation in the field for 5,000 years.

Pegasus was created by a simple and inexpensive method. His creator -- Boston artist Alfred Duca, who has been working as a research associate in metallurgy supported by Prof. Howard F. Taylor and a grant from the Rockefeller Foundation.

Here's how Al did it: For six weeks he whittled Pegasus from polystyrene (the fluffy plastic so often used by florists) with a grapefruit knife and files. Hollowing out the pieces, he glued them together. The snow-white steed was brought to the foundry, placed in a box and surrounded by sand--chemically "frozen." Through a hole in the sand was poured molten bronze at 2, 300 °F., and with a great sizzle and a cloud of smoke the fiery mass hit Pegasus. The polystyrene vaporized. In its place, 38 seconds later, stood a bronze statue beneath the mound of sand.

For thousands of years there has been a standard process of casting sculpture called the "lost wax" process. A plaster or clay sculpture is coated and finished in detail with wax, then with plaster. Heat melts the wax which runs off and is "lost." Then molten metal is poured into the resulting space and the mold broken away.

Casting art objects has been quite a problem for American sculptors. We have few foundries for artists and in them the necessary special techniques are time-consuming and expensive; often require a high degree of craftsmanship. Most works are, as a result, sent to Europe.

One of the aims of Prof. Taylor and Duca was to adapt various sculpturing media to traditional foundry techniques, enabling foundrymen to do the work satisfactorily and economically. With the foam vaporization process they've done it.

Besides being cheaper, the technique is faster, too. And artists can design with flexibility; also know their works are exact reproductions; the models "become" the statues.

Al's newest sculpture is a 9-foot crucifix, still in its polystyrene state. One of these days it, too, will be cast under the supervision of genial Ed Backman, head foreman of the foundry. Ed has been in on the new process every step of the way; used his wealth of foundry experience to achieve its success. Says Al, "He's really indispensable."

#### MAINSTREAM

The success of the program will be measured by MIT generosity. And week after next when the all-Institute Blood Drive gets underway will come the chance to take our total contributions over the 10,000 mark.

MIT has been a member of the Red Cross Blood program since 1948; has used a goodly share of its supplies for a host of beneficiaries ranging from Boston Lying-In requests to heart and cancer surgery and a wealth of routine operations.

Part of a coast-to-coast program, blood is available free of charge which would otherwise cost from \$25-\$50 a pint. Last year less than 4% of the Institute's thousands contributed to the drive in a grand flow. This year blood drive organizers are hoping to raise the percentage to at least 15.

On March 15-18 the Bloodmobiles will be at Kresge and at Lincoln Lab on the l6th and 17th. Volunteer donors who contribute to the central artery make the precious commodity available to all members of the Institute community and their families. Applications (see page 4) may be sent to Room 24-104. As chairman Ed Dillon puts it, "You'll have the satisfaction of having helped save a life."

### VASSAR STREET BEAT

In November there was a real pick-up in Security Force business -- thefts all over the Institute by one loitering character whose story was mostly the same. He'd tell an unsuspecting secretary, "My wife left her purse in the lady's room. Will you go and get it for me?" One moment later, he'd be gone with the secretary's pocketbook.

By last month every building had been hit, and Sgt. Jimmy Olivieri decided it was "really hurting." Tracing descriptions he found someone who remembered seeing the thief before. He had, in fact, taken a course with him

at the World Scope Encyclopedia training school. On his day off the sergeant went to the school and looked up records of sixty encyclopedia grads. He narrowed the list to three suspects. One with the likely name of James James.

A few days later the World Scope manager frantically called to say, "The boy's here. I just saw him in the corridor." The company offices were in a new building and the wallet-lifter didn't realize he was hitting his alma mater. Working up a conversation, the manager discovered this "graduate" was working for a furnace company in the Boston suburbs.

Sgt. Olivieri patrols MIT from midnight to 8 a.m. On his off hours he sat in his car outside the furnace company and tried to pick out the suspect. When he had chosen, he followed him; discovered his name was James Joseph. James followed James for many days.

The FBI had a record on him for larcenies in five states; including Alaska, and four out of seven MIT secretaries identified his picture, some at Harvard, too.

Sgt. Olivieri got things down pat and called the Cambridge police who picked up the suspect. He confessed to 100 larcenies in the course of which he'd quit his regular job and proceeded to steal on a full-time basis -- with no deductions. He'd even hit Lt. Governor Murphy's office right in the State House.

The tired sergeant can now enjoy his time off without complications; hopes that fewer MIT purses will be left temptingly above board. Commended by college and Cambridge police, Jim's only formal police training was a 4-week course with Security Officer Burstein. But he's quite a sleuth. Twist to this case: the furnace company, it seems, used strange methods. After its crew serviced an oil burner, there was always a breakdown which required major repairs by the same heavy-handed bunch. Thanks to Jimmy, it's now being investigated by both state and federal authorities.



Private eye?

#### SCAN, MAN

They spend 45 minutes of every hour in the dark, gazing at pictures on viewing screens. Featured on the show are films of atomic particles which track like hen scratches across the screen. Officiating in this Nuclear Science scanning room are six pretty ladies from six different countries.

Their job is to "read" the pictures taken of bubble chambers and record the behavior of gamma rays, neutrons, electrons and protons. In 1959 they examined a grand total of 100,000 pictures.

There are periodic breaks when the blinds are opened and they can read or just talk; all insist it's the "atmosphere" which makes their jobs so pleasant. Credit for this they give to charming Mrs. Marianne Von Randow, head of the group.

Among other things Mrs. Von Randow is often called upon to give a third opinion when two people interpret one particle differently. She herself has been in this country for about three years, was once on the way to a musical career as a coloratura in Germany. Her degree in music teaching has been put to good use with her two daughters who play the piano, recorder and cello. She studied mathematics at the University of Hamburg and is the only member of the group with scientific training. "But," she smiles modestly," I'm not a physicist."

American member of the crew is Grace Dutot from Tamequa, Pa. Like three of the others she studied to be a teacher (at East Stroudsburg State Teachers College); came to Cambridge this fall when her husband started graduate courses in architecture at Harvard.

Mrs. Guela Pariser, "Gay", was born in Tel Aviv, Israel; has been here since '57. After a year at Jerusalem University she spent ten at London University studying English phonetics and Arabic. Then, with her biochemist husband, she moved to Turkey where, she says laughingly," I taught American history and government." When not busy with her two sons, she's usually doing publicity as part of her coordinator's job with the Great Books organization.

In American schools, says Mlle. Andree Pellegrin, a teacher must "put something in the head and worry about psychology as well." Andree graduated from normal school in Nice and taught English there before coming to Boston in '58 to teach French in a private school. No stranger to the U.S., she had spent a year at Gaucher College on a Fulbright studying American civilization. There's one thing still puzzling her about Americans. "They're all worried about being well-adjusted," she says, " and back home in France no-one wonders about it!"

Fourth teacher is Mrs. Ameriga Milano from Rome, Italy, who taught Latin and Italian

there for four years, before coming here in '58. While a student in Rome she served as art critic for a review for professional people; also wrote popular articles on art for the free labor syndicates. For three years, too, she was a member of the Swiss Volunteer Red Cross, which, she says, "opened my life." Serving in hospitals and studying she became quite an adept nurse -- even delivered a baby.

Following a year as governess to three youngsters in Lexington, Ragnhild Reinert came to MIT this fall. Her home in Oslo, Norway is near the Kon Tiki museum -also near enough the ski slopes for week-end jaunts. She much prefers cross country. As yet, though, she hasn't done much skiing here. "I'm not much good at slalom," she grins," and here everyone just goes to the top and then, down -- swoooosh!"

Mrs. Von Randow scans scanners Ragnhild, Gay and Grace (lft to rt)





Andree (left) and Ameriga

#### HERE AND THERE

Mark Connelly, Credit Union prexy, sends word that the organization anticipates a 4% dividend next year. And to clarify the statement (issue of Feb. 16) that top loans are \$750, reminds that with collateral the ceiling is far above that figure. \$750 is top for loans on signature.

With the proceeds slated for WGBH-TV, Channel 2, the Dames are about to present their spring show, Road to Fashion. Newest styles from the Town & Travel shop of Harvard Square will be modeled by a glamorous group on March 21 at 8 p.m. in Kresge. Tickets at 50¢ per Dame and \$1 per non-member, will be available at the door, or by calling Jean Colling, at BI8-0086. Also to be featured: MIT Logarythms and the Sandra Aroff Spanish Dancers.

FOR SALE ETC.	'50 4-dr deluxe blk Chevy sedan. R&H, new battery, 2 snow tires, like new, incl. One owner car, \$135. MI3-6465.
	'52 Chevy 4-dr. R &H, \$275. VO2-3844 (evgs).
Sportsfisherman, 43' x ll' x 3 <sup>1</sup> / <sub>2</sub> ', powered by 110 hp Chrysler marine engine. Comp rigged with 5 channel radio telephone, Compass, life jackets, lines, anchor. Exc cond. Asking \$1, 800. Frank Harrington, Ext. 3501. Lady's size 5 ski boots. Also riding boots, 6-6 <sup>1</sup> / <sub>2</sub> , 8 x 10 beige rug, almost new gold antique satim drapes for 7 windows. IV4-4653. Two machine Dictaphone set, transcriber, dictating machine, using plastic sleeves. Top-notch cond, Dictaphone service contract, purchased 5 yrs ago, used 1 yr. Orig cost, \$750, price \$275. Mrs. Donald Light, Gl8-516i, Groton, Mass.	'52 Morris Minor. Have small car advantages, 30 mpg, parking ease, for \$195. New brakes, good tires, Mrs. Karl, Ext. 2224.
	'52 Ford convert. Auto, 2-dr, ww's, white top, exc cond. \$300. Barbara, Ext. 741.
	'54 Ford 2-dr sedan. Overdrive, power steering, R&H, standard shift, \$450. T. Walsh, Ext. 2491 or PA9-4815 (evgs).
	'56 Willys jeep station wagon, 4-wheel drive, exc cond. \$1,600, will haggle. J. Farrington Ext. 2675 or UN4-0372 (after 6 p.m.)
Comp stereo system. Silvertone, exc cond. \$125. CR4-8245(7 to 9 p.m.)	'56 Ford Customline 2-dr. 8 cyl, Fordomatic, R&H, exc ww's, 2-tone, \$900. W. B. Smith Ext 5340(Lincoln).
RCA "45" auto record changer, needs repair. Also 168 records incl. \$35. CL9-8771.	'57 Buick 2-dr sedan, white, std shift, R&H, 25,000 mi. Lindsey, Ext. 2953.
Two tubeless tires, 6.70 x 15. Still have same tread. \$8. A. Larrabee, Ext. 3703.	'57 Saab. Grey, R&H, ww's, 21,000 mi, new battery and brakes. \$1,150. UN4-1326.
Baby sitter avail evgs and weekends. Back Bay area, trans required, Jeri, Ext. 4411 or KE6-9769 (evgs).	'57 Chevrolet 4-dr hdtop, R&H, power glide, clean, 26,000 mi, must sell. \$1,275 or best offer. Roger Travis, Ext. 3237.
Port elec iron with traveling case. \$4. Ext. 671 or EL4-4471 (evgs).	'57 Ford Fairlane 500 4-dr sedan. Fordomatic, R&H, defroster, all power, many extras,
Bell #2200 amplifier, 20 wt. Orig \$100, will sell for \$25. David Mellon, Ext. 4469.	low mil. \$L, 450 or best offer. J. Skenian, Ext. 5393 (Lincoln).
Solar enlgr with condenser and Wallensak 4.5 lens, \$50. Also two 5 x 7 contact printers, \$5 each; GE pr-1 exposure meter, \$20. Bolsey D-2 35 mm with flashgun, \$30. Alan Hersh-	'58 VW sedan, bronze color, clean, exc cond, one owner, no accidents, 39,000 mi. \$1,200 Mrs. Donald Light, G18-5161, Groton.
dorfer, UN8-7856. Rek-O-Kut K33 turntable with base. Also Audax KT-12 tone arm, GE GC-5 stereo cartridge.	\$1,625 takes this exc '59 Ford, all equipped. 2-dr, std shift, owner leaving country. Ext. 2823, or KI7-7451.
About 30 hrs on diamond stylus. \$45 for all. Paul Hickman, EX6-6775.	'59 Rambler American 2-dr sedan. R&H, exc cond, asking \$1,500. Margery Koester, Ext
Model 70 Winchester, 300 H&H magnum, brand new, never fired, \$95. Also B&L Balvar 2X-8X variable hunting scope, new; Vega guitar, round-hole, steel strings, model FT-90 like new, with case, \$95. Bill Ross, KE6-5498 (evgs).	l47 (Lincoln).
	1959 Buick La Sabre H. T. green \$2900 Gil Klein X-765
'50 Hotpoint refrig. Very good cond. \$50. WA4-1748.	Unfurn apt in Stoughton. 4-rm single family, Capette. \$90/mo. Jim King, Ext. 2128.
Daytime baby sitting by graduate children's nurse. CO7-5906 (after 7 p.m.)	House in Belmont, extra lg garden, immed occupancy, \$18,000. IV4-1392.
Two walnut AR-2 spkr systems. Also Electrostat-III tweeter with crossover network. Wedlock, Ext. 631 or BE2-7860 (evgs).	Winchester 4-rm Cape style, expansion attic, fp, garage, well-established neighborhood. Shown by appointment. PA9-4674.
Five-mo old Goya guitar, 10 yr guarantee. Ralph Harris, LA3-2694.	<ul> <li>Bedford 3-BR Cape. Sep DR, LR with fp, lg K, finished basement, garage, <sup>1</sup>/<sub>2</sub> acre lot, 100 x 210. Owner being transferred in July 1960, will vacate sconer, if necessary. Should go easily on FHA or GI financing at \$16,900. Maj Jensen, Ext. 2280 or CR4-0539.</li> <li>Wanted: grad school couple to live in our house and watch over our two girls, ages 7 and from May 15- June 5. Lg contemp home in Bedford woods on trout stream, all appliances, a expenses paid, car incl, plus \$100. 30 min from Cambridge. CR4-8239.</li> </ul>
Couch and platform rocker set with end tables and lamps. Also glass-topped coffee table ideal for couple starting out or for playrm. Also Speed Queen ringer washer with rebuilt motor and pump. Selin, Ext. 7307 (Lincoln).	
GE elec hand mixer, pink, brand new, never used, \$10. Jane, Ext. 2846.	
Argus C-3 camera with flash attachment in good shape. Used very little, best reasonable offer. John S. Holland, Ext. 3579 or MO6-0785.	Wanted: recording of "Gloria Mass" by Vivaldi, A. on Westminster label. Must be in good cond, cat. no WL-5287. Ext. 2513.
Harmon-Kardon "Festival" hi-fi. FM-AM tuner, preamp, 20 wt amp, \$99. Also GE table	Wanted: used adding machine, prefer elec. Ext. 2647.
model 17" TV with new tube, \$35. George Perry, Ext. 2676 or KI7-3777. Baby accessories: Lalabye crib, tile head board, very smart, cost \$60, sell for \$30, used 2½ yrs, exc cond. Also baby server feeding table, formica and aluminum, cost \$29, sell for \$19; Hedstrom twin stroller, sunshade, foot rest, cost \$25, sell for \$16, used only few mos; feeding dish, china top, cost \$4, sell for \$2.50. M. Kayton, Ext. 2264. Royal typewriter with 15" carriage, recently overhauled, best offer. Also, Martin mandolin, best offer. Spivack, Ext. 3580.	Planning to leave town from Mar. 15th to April 1? Working couple with grown son need home in or near Lexington during that period. VO2-6947 (after 6 p.m.)
	Wanted: a bicycle, \$10-15. Haris Sutabutia, CH2-4079 (10-11 p.m.)
	Wanted: girl to share lg apt in Cambridge with 1 other. Good location, 5 min from Hvd Sq, own BR, LR, unfurn, avail April 1.\$45/mo plus utils. TR6-6520 (evgs).
	Wanted: 1 cedar chest. GR9-2513.
Frigidaire mangle iron, exc cond. J. Foley, Ext. 4489.	Two girls want 2 rmmates to share furn $6\frac{1}{2}$ rm apt. Own BR, reas rent, conv to MTA. Jane
Standard poodle puppies, AKC reg, fine blood lines, TW4-9205.	Ext. 2583.
Hot plate with 2 burners, used only 4 wks, reasonable. Also unusual Dutch grandfather wall clock. Ext. 2826.	Wanted: outboard motor 5 hp or under, vintage no object, cond critical. Spivack, Ext. 358
	Wanted: phano.'GA7-5443.
Man's figure skates, size 10, used once, \$5. Ext. 2412 or Rm. 8-206. '50 Olds . Running but needs work. Make an offer. Gerald Weiss, Ext. 7223 (Lincoln).	Wanted: men's clothing and shoes for charitable institution. For inform: C. Fernald, Ext. 2393 or Ann Nenart, Ext. 2383.
the start for a construction work, what an offer, Gerard weiss, Ext. 7223 (Lincoln).	Wanted: 2 sets of golf clubs (man's and woman's) Mrs. Kohoo. Ext. 570

Tech Talk is published every two weeks. Send news and ads to Miss Agnalt, Room 3-339, Ext. 2709. Next Deadline: March 9.

RED CROSS ANNUAL BLOOD DRIVE - MIT	Return to Room 24-104
Name	Blood Type-Rh
MIT Dept and Room Number	Date of Birth
Date and time you prefer appointment (give 3 choices)	