

The California Tech

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Mayday Celebrated by Dabney Worker Group

The Dabney Workers' Party last Saturday night attracted a good many odd-weekend snakes from the pits to celebrate Mayday with rye bread and punch strongly reminiscent of Vodka.

At twelve, "Uncle Joe" Mangin and his minister, Auerbachski, were presented to the couples for their acclaim. A house beauty contest was held, and Miss Barbara Blair was chosen to represent Dabney at the May 14 ASCIT beauty contest.

At one o'clock, it was decided that all subversive activities should be moved back underground until next year.

THE SQUARES' CIRCLE

There is an opinion, held by the great majority of people, that the best way or indeed the only way we can have peace is by being well prepared for war, or as we say, "any eventuality". Since the well-being of every civilized person, and perhaps civilization itself, is dependent on our solving this problem of war, it behooves us to be very careful in accepting a program which claims to be able to prevent war, especially if by warlike means. The idea that being well prepared for war will prevent war needs special scrutiny.

False Premise

In general it is based on some reference to history. "We would have been better off then if we had been well prepared," so the argument goes, "therefore we will be better off now—if we will only learn from history." Unfortunately, the middle premise, that conditions are different now from what they were even ten years ago; this should be taken into account. In the first place, we must realize that offensive weapons are becoming identified with defensive weapons. Thus when a nation prepares for defense, it prepares for an effective offense, and it will be very difficult to persuade the second big nation in the world that these preparations are defensive

and are not aimed at her. Second, an arms race becomes much more earnest when there are only two parties to it. When there are a number of nations engaging in an arms race it is bad enough. But when there are only two left, when we make the equation between defensive and offensive weapons so that each looks on the other's "defensive" preparations with fear, and when we consider the terrible destructiveness of these weapons, there exists a situation unparalleled in all of human history.

Event Unlikely

It seems likely that under such condition an arms race could end only in the eventual destruction of both parties. We are engaged in that arms race now.

With these things in mind, many of us have urged Mr. Truman to enter into direct negotiations with Mr. Stalin to establish a mutual disarmament program. (Were there more security against atomic war, there would be a good deal more sanity in the world.) If there is some sense of false pride which makes Mr. Truman declare that he will meet Mr. Stalin nowhere except in the White House, let him swallow this in realization of what an atomic arms race can mean to the world.

Jim Harder

• THE FRONT BURNER

"This Young World," a play by Judith Kandel, had its world premiere at the Pasadena Playhouse last night.

The action takes place in a present-day "little red schoolhouse" of the country, on a day when teacher is away. It pictures the greed, violence, prejudice, and other emotional currents which run rampant in young America as well as old.

Arthur Lubin is co-producer with Marcella Cisney directing. Darryl Hickman, Parker Eggleston, Dale Belding, Anne Kimbrell, Janet Burston, and Doreen McCann are included in the cast, with design by Mordecai Gorelik.

George Bernard Shaw's comedy, "The Millionaires" closed a creditably presented run last Sunday, May 2.

Musical Baedeker

In spite of impending mid-term examinations, Tech music lovers turned out in full force to hear Artur Rubinstein in his only Pasadena appearance last week.

Big Event

The solo piano recital promised to be an important musical event in a comparatively lean season; Pasadenans were therefore somewhat disappointed to hear a program consisting entirely of the more conventional items in Mr. Rubinstein's repertoire. His excellent playing and flashy technique helped make up for the deficiencies in programming, however; and Artur Rubinstein appears to be one of the foremost pianists of our time.

Last Concert

The Pasadena Civic Auditorium will close its present season on May 19, 1948 with a concert by the Philadelphia Orchestra, conducted by Eugene Ormandy.

Conventional Selections

The choice of much-played musical selections may be thought of as a doubtful tribute to the town's conservative tastes;

SEIDEN TAKES HONORS

(Continued from Page 1)

Saturday Breakfast

Professor A. Hollander, the honorary chairman of the convention, held a breakfast Saturday morning at which future plans and methods of improving the student branches of the A.S.M.E. were discussed. From 10 to 12 there was another technical session at which the remaining four contestants presented their papers. William Seiden, representing Caltech, presented his paper, "The Theory of Plastic Strain Propagation." The paper dealt with the theory

on the other hand, such choice may be governed by the necessity of presenting an entirely different program in nearby Los Angeles, since the audiences overlap to some extent. Nevertheless, it is to be noted that Los Angeles concertgoers are invariably presented with a much more interesting musical fare than their Pasadena brethren.

Hollywood Bowl

The Hollywood Bowl Association announces another season of "Symphonies Under the Stars." The orchestra engaged for the three-month cycle will be the Hollywood Bowl Symphony, which will consist entirely of L. A. Philharmonic players.

Conductors

Eugene Ormandy will conduct; guest conductors will be all Tuesday and Thursday engaged for the Saturday-night "popular" concerts. Season tickets for as low as \$12 (general admission) may be obtained by sending a check to the Hollywood Bowl Association, 2301 N. Highland, Hollywood. The season will begin on July 13 and will last until September 4, 1948.

Seiden Wins

The award Dinner was held at Blacker House where J. Calvin Brown, national vice-president of the A.S.M.E., presented the awards. The first prize of \$50 was won by William Seiden. The second went to California at Berkeley, the third to Southern California, while Santa Clara was awarded fourth and fifth. The convention was completed with a field trip to Mount Wilson.

Iceplant...

That George Shor has no love for the iceplant that adorns part of the Caltech campus should by now be rather obvious. That he is not alone in taking a dim view of the gruesome stuff is equally obvious. If a poll, "grass vs. iceplant," were to be taken on campus, there would be hesitancy on the part of this observer in predicting a 99.44 percent pure pro-grass verdict.

Such is the strength of feeling on campus. But what is the chance that the iceplant will, in fact, be condemned to a merely historical role by the onrush of a new and grassy era?

To speak very frankly, if you name an epsilon as small as you chose, the chance of grass will be significantly smaller. And, in spite of Mr. Shor's scathing accusation, the burden does not rest with one Wesley Hertenstein, an alleged ogre who heads the Building and Grounds department. Nor does it lie with the Administration Officers of the Institute, specifically one Mr. William Stott, the comptroller, sometimes pictured as an even more formidable ogre than Hertenstein, who holds the purse strings of the Institute in his iron-like miser's clutch.

The answer is not hard to find. The decision in this matter, as in all similar matters, is the responsibility of the Building and Grounds Committee, an august body of lush trustees which, unsurprisingly enough to anyone who things about it, actually has the best interest of the Institute at heart.

We can quite easily analyze the committee's decision in this issue by glancing at the very facts which were presented to the committee.

The Institute is now in the red and anticipates a \$400,000 deficit this year.

The maintenance cost of iceplant in the quadrangle in front of Throop hall is negligible.

The cost of the "iceplant out-iceplant in" operation, now nearing completion, is \$1000. No new iceplant has to be purchased.

To maintain grass in the same area would, according to B&G estimate, cost \$1000 more than iceplant per year.

To put grass in initially in this area—to prepare the soil and install a sprinkler system—would cost \$5000.

Thus to plant grass this year instead of iceplant, without even taking into account upkeep, would run the Institute \$4000 farther into the hole. This \$4000 represents the income on \$100,000 of its endowment money.

After looking carefully at these figures, the B&G Committee decided on iceplant. Since the Institute will probably continue to look up at the break-even point for some time, the committee will probably continue to decide against grass.

Possibly the above figures sound like chicken feed to you when compared to a \$7,500,000 a year business like Caltech. Possibly you think that the cost-difference represents a sound investment in goodwill and increased efficiency and happiness on campus. You may be even a little dubious about the efficiency rating of a department that requires a \$1,000 outlay merely to pull that darn stuff up and stick it back in the ground again. But to assume that the efficiency of this department is going to increase merely because grass is planted in place of iceplant is certainly not justified.

That is the story on iceplant. If someone could be found who would donate the \$5000 to get grass in, the Committee might make a favorable decision. It's not beyond the realm of possibility. But barring the appearance of any such public-spirited soul, the future can be nothing but an icy one.

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Blacker Exchanges, Views Dramatics

Blacker's last Exchange Dance of this term was held here Friday night with P.C.C. and other groups. Saturday night 25 couples enjoyed a fine showing of Shaw's "The Millionaire" at the Playhouse, returning to Blacker Lounge for dancing and refreshments.

Next weekend promises to be a big one for the House, with a Decoration Stag Friday night followed by the "Doc's" Formal from 9:00 to 1:00 Saturday evening. Music will be provided by Eddie Miller's Band, well remembered for its smooth melodies and intermission "dixieland" of last term's Blacker-Fleming Formal.

Throop Club Schedules Hay Ride, Picnic Lunch

Next Saturday afternoon will see eager Throopmen and their best gals rushing up to the hills for the Club's Hay Ride and Picnic. A truck will leave the Club about 2:15 Saturday afternoon to take the first group to Santa Anita Canyon, and will return for the working men and athletes about 5:45.

Picnic Supper

A picnic supper will be furnished by the Club and will consist of hot dogs, potato salad, beer, cokes, and all the trimmings.

After the dinner, kids will be taken home and the adults will return to the Club for dancing until all hours of the night. Anyone who wants more info will find the whole story in the Club lounge, along with a signup list.

Air Your Political Views

About this time of year the major American sport seems to be the Political Opinion Poll.

The Tech has been asked by Varsity Magazine to cooperate in a nation-wide survey of Presidential preference among College students.

We would like our student-readers to mark on the following list their first, second, third, fourth, and fifth choices as men they would vote for, assuming in each succeeding choice that any candidate named in a preceding choice is not on the ballot.

Use numbers to signify your ranking: 1 for first, 2 for second, etc. Then please tear out this ballot and deposit it either 1) in the "T" box in any of the houses or 2) in the Tech "Letters to the Editor" box in lower Throop.

Please answer additional questions as indicated so that figures may be analyzed more readily:

Thomas Dewey	_____	Robert A. Taft	_____
Dwight Eisenhower	_____	Harry Truman	_____
Douglas MacArthur	_____	Arthur Vandenberg	_____
Joseph Martin	_____	Henry Wallace	_____
Harold Stassen	_____	Earl Warren	_____
Other	_____		_____

Check these questions:

Are you a veteran?	_____	Yes	_____	No	_____
House Membership:	B— D— F— R— T—				
Party Registration:	D— R— Ind—				Other— _____
Age? _____	Size Shoe? _____				
Pro Iceplant? _____	Anti Iceplant? _____				

DUMOND MEASURES RAY

(Continued from Page 1)

essary because it has a "half-life" of only 2.7 days, and it was rushed by automobile from Burbank to Caltech for immediate use. It had a source strength of one curie.

Made at Caltech

The new spectrometer, which stands three feet in height and is approximately nine feet long and seven feet at its widest point, was not only designed but machined and built in Caltech shops and laboratories. Looking something like an isosceles triangle with auxiliary attachments, it requires most of the floor space of a 15x18 foot laboratory room. It weighs approximately one ton, half of which is accounted for by lead shielding. Although begun ten years ago, all work on the instrument stopped for nearly five years during the war period while Dr. DuMond and his associates turned to war work. Work was resumed in 1946.

The central and most vital element of the spectrometer is a rectangular piece of monocrystalline quartz 1 millimeter thick and 7x8 centimeters in size. This was first cut from a large natural quartz crystal. It was then ground and polished to a high degree of optical flatness and parallelism on both its large faces.

Lattice Planes Focus

Atomic lattice planes in this crystal plate are the "agents" which diffract and focus either X-rays or gamma-rays. They do this in a selective manner so that different wave lengths of light focus at different locations on a portion of the circumference of a circle which, if complete, would be six feet in diameter. In order to get this focus of the radiation, the crystal plate had to be bent to a slight, but very accurate curve—a curve that would have a radius of about six feet.

CAMPUS BREWINS

The Beaver Initiation Party was a rather novel affair. After going to the beach for a combined beer bust and stout bout, those who were able to find it repaired semi-sober to Herzog's home situated high atop a hill in Hollywood. People could fling beer cans way down at the street below. The entertainment given by the initiates was on an abysmally low plane. This was particularly true in the case of Don Royce. It was interesting to note which women laughed and which shuddered. You learn a lot that way.

Alexander wins the award for the week. He started out for this communal debauch with what passes for his true love, when she gigglingly mentioned that she and her roommate had been discussing the idea of switching dates. Alexander turned around and drove back and made the exchange, much to the chagrin of the fiancée of the other girl. Alex recommends it highly, however.

Lover Glover has apparently been giving his sidekick, Bill Woods, very good lessons, for the

Bending of the crystal was accomplished by clamping the plate permanently in a sort of cylindrically curved, hardened, stainless steel vise. The vise jaws have holes in them so that both X-rays and gamma-rays may be studied. Precision of a few millionths of an inch was necessary in profiling the convex vise jaws.

The instrument was purposely planned to permit work in both X-ray and Gamma-ray regions of the spectrum for two reasons. The first reason was for convenient testing of the quality of the focus with easily obtainable X-rays and the second, and most important, to establish a precision link—heretofore unobtainable—between the scales of wave-length in the X-ray and gamma-ray regions.

new Beaver prexy seems to have swept a certain Scripp's editor off her pins. Fittingly enough, the campus wheels met with a great wind at Point Doom, and—just as the perennial Mittenhall arrived—

At Herzog's "hovel" the shrill sounds heard all evening were partly due to the peacocks, but mostly due to "Das Muhl's" attempted assault on Ottestad's date.

We are happy to report that Tom Stix, undaunted by failing to point at Oxy, is now robbing the Hollywood cradle. We trust that he will feel more at ease with the younger set now that his cast is removed.

The most disgusting member of the group, as per usual, was Windy Marshall who behaved in a fashion most distasteful to the others.

Blacker's Theater Party was most notable for the fact that there were so many more people locked in warm embraces on and about the dance floor than there were attending the dramatic portion of the evening. The floor was getting a double workout with the PCC exchange having been held there the previous evening. It was a quiet sedate affair, that is, the part that was on the dance floor. For an engaged man, Dave Baron doesn't do too badly. He spent most of the evening out in the parking lot, but you can bet your bottom dollar he wasn't showing that girl how his motor ran.

And then there are people like Don Rolph who always take everything so literally. When he told his girl that they were going to the Padua Hills, she naturally assumed he meant the Padua Hills Theater. Not Rolph—he meant the hills as she found out much to her dismay. We hear it is an excellent place for swinging from limb to limb.

Forester & Company

We are pleased to announce that the producers of a product that we highly indorse to all our readers, namely Forester, Ricketts & Co., have expanded their vulcanizing business to include rental of shotguns and cartridges.

We have also received word from another of our producers, J. Williamson & Co., have announced the continued successful launching of their "Mighty Mite," the successor to the Wac Corporal. They announce that rapid progress is being made in a longer range missile and that the target for same lies to the southeast instead of northeast. Good luck men!!

Credit Peter Knoepfler with bringing the most conscientious girl to the Dabney Worker's Party. Ample endowed with all the requisite physical assets (plus a little more) she nevertheless was wearing a skirt that scraped the floor. To compensate for this social blunder, she retired for a few minutes, reappearing in a shorter version. What it was and how it was to

Crud Alley Livens Gay Peasant Soire

Competing with a balmy evening and the attractions of the beach at twilight, the Ricketts Rowdies' Peasant Dance got off to a late but memorable start last Saturday eve with the arrival of the Crud Alley contingent.

Looking altogether like sunburned peasants of the fields the group arrived at a previously quiet dance with faces that glowed from more than sunshine.

The queen for Ricketts was not chosen at the dance as had been planned, but honors for the most representative peons went to RA, Rube Metler, and to a peasant named Thorpe. Thorpe's costume added little to his peon appearance.

Athletics Planned For Ricketts, Dabney

Next Saturday eve at a chosen rendezvous on the mount, twenty trained men will tensely wait, their faces sober and serious in the hushed night.

A few words will be said, and at a given signal the two leaders will raise their arms in battle as each tries savagely to best his foe, and the Crew Race will be on in the annual Ricketts-Dabney Barn Dance at Mountain Oaks.

Acme Trophy Ready

Prize for the winner will be the splendid interhouse Crew Race trophy made especially by Acme Brewing Company for the Tech athletes, to replace the old one which was nudged off the piano onto a concrete floor at last term's Blacker-Dabney fracas.

Entertainment

Dave Warren's jazz combo will be featured from time to time throughout the evening, with records furnishing the music for the rest of the time. During half-time intermission, the flamer and beauty contests, the crew race, and the other usual sporting events will be held.

Eric Johanssen and date had the most colorful costumes present. He looked like he had just come in from the rice fields of China, while she looked much better—her skirt was well above the legal limit and for two good reasons, nobody remembers what else she wore or did she?

The fruit punch was ostentatiously labelled "vodka" to keep in spirit with the affair, but judging by the number of Fleming men who came over to sample it, the sign must have been more truth than fiction. Comrade Auerbach could not be reached to make a statement before press time.

Research Program Produces Technique for Tapering Molten Nylon Bristles

Difficult mechanical problems solved by Du Pont chemists and engineers to make nylon paintbrushes practicable

Nylon bristles used in toothbrushes and hairbrushes are uniform in diameter—that is, they are "level." But paintbrushes made from such bristles did not paint well. Studies of the best natural bristles showed that they were tapered, so a research program to produce tapered nylon bristles was started.

Some difficult mechanical problems were encountered. Level brush bristles were being made by extruding molten nylon through spinneret openings designed to produce filaments of perfectly uniform diameter. A new technique had to be found to make tapered ones. Since it was not practical to taper the filament after cooling and drawing, a precise taper had to be put in just as the nylon emerged molten from the spinneret. And it had to survive the drawing operation, in which nylon is stretched to several times its original length!

Techniques originated in laboratory

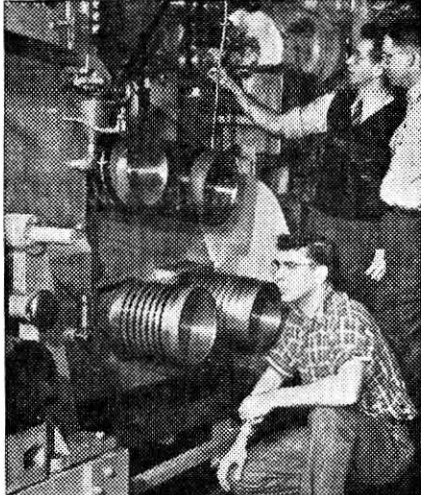
The original idea for solving this problem came from Du Pont chemists, who

worked out the techniques in the laboratory, in the somewhat crude form represented in the accompanying diagram. It being largely a mechanical problem, chemical and mechanical engineers were called in to cooperate soon after the studies got under way. After further laboratory development, the engineers put the operation on a production basis.

The final result was a highly efficient process for tapering nylon bristles. As the molten filament emerges from the spinneret, pinch-rolls driven by a series of gears pull it slowly, then quickly. The size of the filament varies with the speed of pulling—thick diameters resulting at slow speeds and thin diameters at fast. Next the nylon goes to the drawing operation, where it is stretched by rollers to give it strength and resiliency.

Engineers designed special machines

Following spinning and drawing, in which many filaments are handled simultaneously, the nylon is "set." Then it goes to a special machine, designed by Du Pont engineers, which "feels out" the crests and troughs and cuts the bristle at these points. This type of design was necessary because of the unavoidable small variations in the length of individual bristles. Sorting the bristles and sandpapering their ends completes the process.



Present state of development of the "spin-draw" machine evolved from the crude laboratory apparatus shown in the diagram below.

Many techniques contributed to the development of the optimum properties of nylon in tapered bristles. At the laboratory stage, x-ray studies were made to learn the effect of various degrees of crystallization on bristle drawing and setting. Numerous devices were designed to test the bristles—for example, a machine that simulates the abrasive effect on a brush swept back and forth over a surface. Even after manufacture was established, high-speed stroboscopic photography and other stroboscopic studies were employed to improve coordination in the various operations and make a more uniform product.

The development of these bristles furnishes another striking example of the great variety of problems, often intricate, that may arise out of the discovery of a new substance like nylon.

Questions College Men ask about working with Du Pont

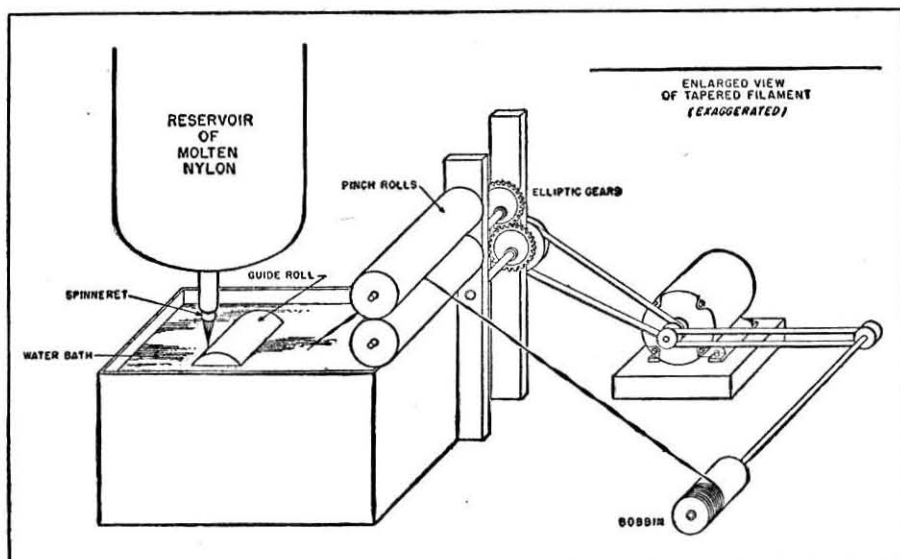
What are the opportunities in development work?

The conception of an idea in a research laboratory is merely the starting point at Du Pont. Men with training in mechanical, electrical, metallurgical, and chemical engineering are required to demonstrate the practicality of the laboratory findings, including small-scale operation of the new process. Even after the full-scale plant is operating, development work is continued to improve efficiency. Write for booklet, "The Du Pont Company and the College Graduate," 2518-A Nemours Building, Wilmington 98, Delaware.



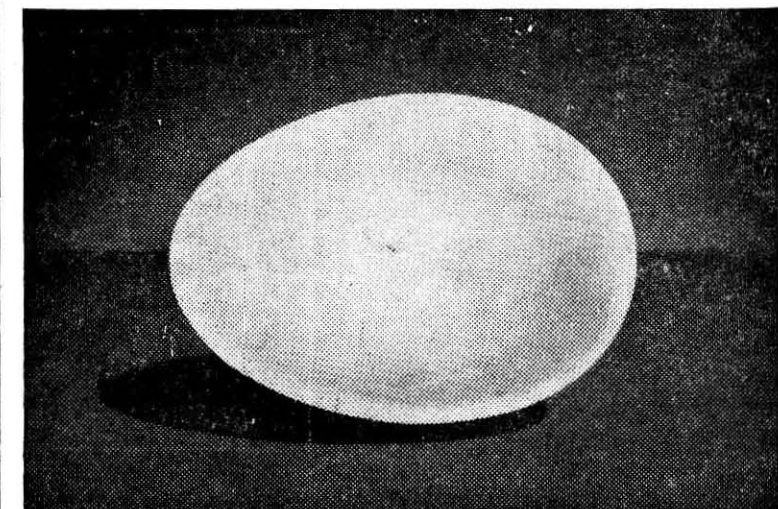
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Diagrammatic representation of the first laboratory apparatus used to establish the principle of making nylon from molten plastic. (From an early patent.)

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Bull Pups First In Frosh Track Conference Meet

Redlands' Frosh track team took and kept a commanding lead after the first few events, to win the Southern California College Frosh meet, held last Friday at Tournament Park.

In a close fight for the last three places, Caltech's junior spikemen came in fourth, 1 1-3 points behind third-place Pomona, and ahead of Whittier by a narrow 1-3 point.

Miller Wins in Field Events

The only blue-ribbon winner for Tech was Art Miller, who heaved the discus 116 ft. 8 in. for a first in that event. Miller also got a third in the shot-put for Tech's only other place in the field events.

Techmen Place in Distances

In one of the most exciting finishes of the meet, Walt Edwards of Tech nosed out Mann of Oxy for second place in the half. Redlands took first place in the two mile as well, which Creacey won by 150 yards.

Bob Cobb took second in the two-mile, and third in the mile. Cobb was handicapped by a side-ache developed during the fourth lap of the mile, and lack of time to warm up for that first event. Dick Smyth also placed for Tech in the two-mile in a close finish.

New Records Set

Redlands runners also broke the tape in the sprints. Mason of Redlands won the 100 in the fast time of 10 s. and set a new conference record of 21.8 s. in the 220.

Another conference record was shattered, though not by the Bullpups, when Oxy's Jack Strom trekked over the 220 yd. low hurdles in the fast time of 24.3s.

Summary:

- Mile—Tanner (R), Creasy (R), Cobb (C), Treacy (P), Hill (O), Steese (C). 4:58.3.
- 100-Yard Dash—Mason (R), Ruprecht (C), Taylor (R), Nerling (P), tie between Carpenter (O) and Kellogg (O). :10.
- 220-Yard Dash—Mason (R), Ruprecht (O), Nerling (P), tie between Taylor (R) and Carpenter (O). :21.8.
- 440—Cotrel (O), Fairbrother (O), Edwards (C), Schurr (R), Begg (C). :52.8.
- 880—Tanner (R), Edwards (C), Mann (O), Bowerman (C), Jackson (P). 2:06.1.
- Low Hurdles—Strom (O), Nowels (W), Mason (R), McClung (O), Shand (P). :24.3.
- High Hurdles—Nowels (W), Strom (O), McClung (O), Shand (P), Berg (C). :15.5.
- Shot Put—Swift (P), 41 ft.; Hubbard (R), 39 ft. 9 1/2 in.; Miller (C), 38 ft. 8 in.; Lawson (O), 37 ft. 10 3/4 in.; Durkee (P), 37 ft. 7 in.
- High Jump—Hammond (P), and Conley (R), tie at 5 ft. 9 3/4 in.; Nowels (W), Beckner (W), Hastings (O), and Rheinchild (O), tie at 5 ft. 8 in.; Richards (O), 5 ft. 6 in.; Glahn (P), Kamel (C), and Johnson (C), tie at 5 ft. 4 in.
- Broad Jump—Beckner (W), 19 ft. 8 3/4 in.; Kellogg (O), 19 ft. 5 3/4 in.; Conley (R), and Nowels (W), tie at 19 ft. 5 in.; Siciliano (W), 19 ft. 3 3/4 in.
- Pole Vault—Conley (R), 11 ft. 6 in.; Rowland (R), and Holt (W), tie at 10 ft. 6 in.; Follusco (O), 9 ft. 6 in.
- Discus—Miller (C) 116 ft. 8 in.; Durkee (P), 111 ft. 8 in.; Swift (P), 108 ft. 8 in.; Finney (P), 105 ft. 9 in.; Ward (R), 105 ft. 1/2 in.
- Javelin—Lawson (O), 159 ft. 1 in.; Ward (W), 153 ft. 5 in.; Hubbard (R), 151 ft. 3 in.; Finney (P), 146 ft. 5 in.; Rheinchild (O), 136 ft. 10 in.
- 2-Mile—Creacey (R), Cobb (C), Treacy (P), Smyth (C), Ward (P), 10:57.9.
- Mile Relay—Occidental (Cotrel, Fairbrother, Mann, Ruprecht); Redlands (Schurr, Smithpeter, Ward, Tanner); Caltech (Edwards, Cobb, Bowerman, Sampson), 3:37.1.
- Final Score—Redlands 56 5-6, Occidental 43 1-6, Pomona 22 1-3, Caltech 21, Whittier 20 2-3.

*New conference record.

Interhouse Trophy Race Nears Finale

With the scholastic year nearing its end, the Interhouse Trophy race between Fleming and Dabney is reaching an exciting climax. Fleming currently leads Dabney by a narrow nine point lead in I.H. competition.

Interhouse Trophy Race

House	Points
Fleming	112
Dabney	103
Ricketts	72
Throop	64
Blacker	60

Tennis, Basketball Left

Only tennis and the casaba sport remain on the I.H. calendar. The basketball scoring will be 25, 20, 15, 10, and 5 for last place, while tennis scoring will be 15, 12, 9, 6, and 3. The Big Red is assured of the Trophy for another 12 months if they annex first place in the hoop fight, even though the Darbs might take a second in basketball and a first in tennis. In this eventuality the final score would be Fleming at least 140 points, and Dabney 138 digits. Should Dabney take firsts in both the basketball and tennis competition and Fleming runner-up spots in each sport, the Big Red would still hold on to the trophy, by virtue of a 144 to 143 score.

Fleming, Dabney Win

In tennis matches last week, Dabney defeated Ricketts 2-1, and Fleming shut out Blacker 3-0. Dabney won their opening basketball game with Blacker 31-20, and the Big Red took a 38-21 verdict from Throop's cagers, Tuesday.

Sports Calendar

FRIDAY, MAY 7—

- Baseball: 3:30 p. m. Frosh at Pomona.
- Track: 3:00 p. m. Varsity and Frosh vs. Redlands at T. P.
- Golf: 1:30 p. m. Pomona at Montebello.

SATURDAY, MAY 8—

- Tennis: 1:30 p. m. Varsity at Whittier; Frosh vs. Whittier at T. P.
- Swimming: 1:30 p. m. Varsity and Frosh Conference Meet at Oxy.
- Baseball: 2:15 p. m. Varsity at Pomona.

TUESDAY, MAY 11—

- Baseball: 4:20 p. m. Varsity vs. Glendale JC at T. P.

WEDNESDAY, MAY 12—

- Swimming: 4:00 p. m. Varsity and Frosh at LACC.
- Tennis: 3:00 p. m. Varsity vs. Pomona at T. P.; Frosh at Pomona.

Beaver Sports

THREE TOP TECH TRACK TEAMSTERS



The three outstanding Beaver athletes shown above are Hal Tyson, Martin Walt, and Dwight Schroeder. The trio gathered four firsts in the all-conference track meet, Saturday. Tyson took the shotput and discus events, Walt tied with Berokoff of Oxy for first in the pole vault, and Schroeder broke the Tech low hurdle record by winning that event in 24.3 seconds.

CONFERENCE SWIM MEET SATURDAY; OXY FAVORED

The conference swimming mee will be held next Saturday at 1:00 o'clock at the Occidental pool. Oxy will be the favorite with Caltech, Pomona, and Red-

lands following in that order. Whittier's relative standing is indeterminate inasmuch as none of the conference teams have met the Poet paddlers.

Strong Squad

Oxy's team has been especially strong all season long, having defeated UCLA by a narrow margin and the other conference squads quite decisively. The home crew ranks a strong second in virtue of having defeated both Pomona and Redlands by large scores.

Lose to UCLA

Last Thursday the Beavers met defeat at UCLA where the Bruins scored 47 to the Beaver's 28 points. Despite the strong lead of the Bruins, the Tech mermen gave some stiff competition up to the last event. Techmen Dixon and Shoen upset the Bruins' calculations by nabbing both 1st and 2nd in the next to last event, the 440 yard free style. The Beavers' relay team of Harris, Murphy, Mitchell, and Eschner followed the rally by defeating the UCLA relay squad in the last event.

Dope Sheet

In forecasting Saturday's conference prospects, the Tech squad's best hope is for 2nd place, with Oxy at 1st. The Tigers' strength can best be seen by looking at each event.

Take Firsts

Having fast men in breast, back, and free style, they stand (Continued on Page 6)

BOWLING

Throop Takes I.H. Trophy; Individual Awards Given

The Interhouse Bowling League wound up the '47-'48 season Monday with an individual sweepstakes event and the awarding of trophies. Glen Riechenbach, new manager of the Pasadena Bowling Courts, represented Col. and Mrs. E. C. Goldsworthy in presenting the Interhouse Trophy to Gene Mooring, president of Throop Club.

Individual Awards

Two trophies donated by the Courts were awarded for outstanding play in sweepstakes. These were won by Andy Check of Ricketts and Bob Benton of Throop. Andy fired a tremendous 195-184-216-595 series, plus 42 pins handicap for 637 and an easy high series victory. Bob Benton took high game with 201 plus 16 pins handicap for 217 and a narrow win over Howard Cohan of Blacker at 216.

Beavers Best Bulldogs, Hens In Net Contests

Those who watched the Varsity tennis team in action last week saw our boys ace out both Occidental and Redlands in two thrilling matches to put Caltech right up on top of the Southern California Conference.

Double Win

The strength and particularly the depth of our Varsity Squad overpowered Redlands University 6 to 3 though they boasted top seeded Homer Richards as No. 1 singles player. Bill Shivar lost to Richards though the outcome was doubtful for a while when Shivar took the lead in the early play.

Rest Win

In the No. 2 spot, however, Ed Alexander sailed through the Redlands netman 6-1, 6-0 for the best score of the day. Charlie Vadhanapanich, Larry Nobles,

Phil Lamson, and Jack Poindexter, all of C.I.T., also came (Continued on Page 6)

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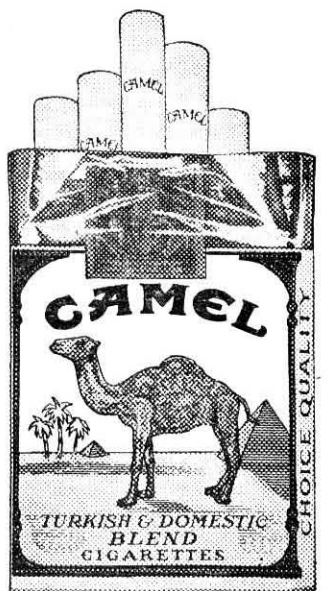


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OPEN EVENINGS

EARLY FOOTBALL WORK NETS GROUP OF HOPEFULS



Coach Mason Anderson talks it over with seventeen of his spring football enthusiasts. The Beaver pigskin coach is conducting a five week spring training period in preparation for next fall's football season. Pictured standing from left to right are George Suman, Bain Dayman, Bill Muehlberger, Craig Marks, Dick Schus-

ter, Don Hibbard, Don Schmid, and Bill Rumer. Shown kneeling are Bill Coons, Dallas Peck, Forest Allinder, Taylor Joyner, Roland Berner, Byron Karzas, Odell Carson, Neal Pings, and Carl Hildebrand.

Tech Tenpin Topplers Throttle Troy Twice in Two Tournies

Tech bowlers downed U.S.C. again this Sunday at the Trojan Bowl in Los Angeles, thus sweeping both ends of this home-and-home match. The strikes didn't come so easily over there as both teams finished with lower scores than last week. Totals: Caltech, 2956; U.S.C., 2865.

Heggland Leads
Sparking the Engineers to victory was lead-off man Ray Heggland, whose 194-179-198-571 series was high of the afternoon. The remainder of the Tech squad finished as follows: Bill Root, 454; Roger Anderson, 473; Andy Check, 474; Bob Lynn, 466; and Woody Bratnober, 518.

High Man
Trojan standout this week was Dick Nielson, whose final game of 240 was high for the match. A match with U.C.L.A. is being arranged at present, but no definite time or place has yet been set.

Beaver Golfers Win Over Bulldogs; Poor Scores Mark Play

Last Friday, the golf team toured to Redlands for their last away-from-home match of the season. Team Captain and Head Scout Ed Revay finally found the golf course, with the help of 2 service station attendants and a homing pigeon. The team was seriously handicapped by the absence of Harry Moore, the regular number one man, but they were still able to hack their way through the mesquite thickets to an 11 to 7 win over the Redlands boys.

Poor Showing
All in all, the golf played was very mediocre. Revay's medal of 77 was low for the day. Benton and Barrie, playing num-

Preislermen Drop 11-6 Home Tilt to Tigers

The Varsity horsehiders lost another conference game at Tournament Park Monday afternoon to the Occidental Tigers, winding up on the short end of an 11 to 6 score.

Spaulding Starts
Five unearned runs in the fourth inning, after two outs, cost the Beavers the ball game. Art Spaulding started on the mound for Tech, yielding nine runs and seven hits, and Glenn Chaffee finished the last three innings, for his third assignment in six days.

Tech Leads
The Engineers led 4 to 2 in the third stanza but the roof fell in during the following inning. Spaulding almost got out of the inning unscathed when he caught a runner off second base, but Don Baker's throw to second hit the runner and the parade across the plate began.

Cellar Battle
Next Saturday the Pomona Sagehens host the Beavers, and the two teams should stage a hot fight for possession of the conference cellar. In a previous meeting the Hens took a close five to four decision from the Engineers.

	0	0	2	5	0	3	1	0	0	11
Oxy
Caltech

S.C.I.C. Baseball Standings

	Won	Lost	Pct.
Whittier	6	1	.857
Redlands	3	1	.750
Occidental	2	3	.400
Pomona	2	3	.400
Caltech	0	5	.000

Slave: "There is a girl outside without food and clothing."
Sultan: "Feed her and bring her in."

Beaver Babes Trounced By Oxy Batters

The Beaver Frosh baseball outfit still has fans scratching their heads as to how they could blow a 7-5 lead by giving up 14 runs in the last four innings. The Beaverbabes did just that Saturday as they lost to Oxy's Freshmen squad 19-7.

Frosh Lead, 7-5
After Oxy brought in 4 runs in top half of the fifth to take a 5-2 lead, the Tech Frosh put across 5 counters, thanks to good solid blows, and wildness on the part of Oxy chucker, Sturdevant. The spree was started by Moss getting a single, Sereno on first due to an Oxy error, and a walk to Bates. Louis Stalkamp then stepped up to the plate and pounded out a long triple to bring in three runs. Before the

(Continued on Page 6)

Frosh Netmen Squash Tigers In 6-2 Victory

The Beaverbabe racketeers finally came through on Monday, by decisively defeating their rivals from Eagle Rock. Even though the second doubles was cancelled because of lack of time, the final score stood 6-2.

Change of Heart
Everyone seemed to have forgotten his troubles which have been so bothersome for the last three matches. After a dismal showing at Redlands, where the Engineers took a 8-1 waxing, the Oxy match was a decided improvement.

Clean Sweep
Against the Tigers, the Beavers won all the singles except for

(Continued on Page 6)

Oxy Annexes Track Title

Beavers Last in Conference Meet As Schroeder Breaks LH Mark

Despite the fine performance of local trackmen, the Beaver cinder squad settled for last place in the Conference Meet Saturday at Pomona behind Oxy, Redlands, Whittier, and Pomona.

Tyson Shines
Hal Tyson upset the Whittier appercart, by taking firsts in both the shot-put and the discus. According to past performances this season, Yates of Whittier should have beaten Hal in both events, but it was Tyson's day to shine, and he made the most of it. His winning mark of 47 ft. 5/8 in. in the shot-put brings him close to Don Tillman's C.I.T. record of 47 ft. 3 in., and considering the fact that Hal is only a sophomore, it is very likely that he will top that record in the near future.

Talkin' It Over with The Goon

Probably the most pleased man on campus this week was the poor man's Dean Cromwell, Doc Hanes. His track lads brought home more blue ribbons than any other team at the Conference Meet. The only thing we really needed was a few seconds, thirds, and fourths.

Record Broken
Dwight Schroeder, Caltech's own Al Lawrence, blasted the existing school record in the lows in a fine 24.3 seconds. Running well ahead over the first seven hurdles he staved off a fast close by Pomona's iron man, Pat Welch.

Double Win
Martin Wall was held to a tie in the pole vault at 13' 1" but Hal "The Form" Tyson breezed in the only double winner of the day copping the discus and the shot. With all of his puts used and with the two other top men in the league yet to throw their final sphere, Ty went into a Yogi routine, warmed up his double whammy and sweated out five hard minutes. But it must have been the burning essence that did it, for both Yates of the Poets and Levin of our pals the Bengals could barely get the pellet out of the ring.

Disappointment
There was only one disappointment for our award winners. For the last two years the Pomona Queen handed out each medal with a sweet smile and a telephone number. But this year the boys had to be content with a hunk of brass and a frown from the Dean of Women.

Netmen Win Again
The Racketeers strongarmed their way closer to the Conference crown by dumping the Tigers 5-4 and the Bulldogs 6-3. charms.

Hickory Handlers
After trouncing LaVerne last weekend Peerless Preislers Per-

Record Broken
As brilliant as Tyson's performance was, the most outstanding upset that the Tech tracksters pulled all day was Dwight Schroeders who, tabbed to take a fourth in the low barrier event ran a brilliant race in the time of 24.3 seconds to erase the old Caltech record of 24.4 seconds set in 1929 by Perry. This brings the total of broken records to three for this year.

Other Digit Men
Other point getters for the Tech team included Bob Funk who nabbed a fourth in the 220 yard dash in a close race. Funk, who has been sidelined all season with a pulled muscle ran much better than expected to obtain his place.

Martin Walt, Tech's new record holder in the pole-vault, was in his usual good form and tied for first in his event, by clearing the high bar at 13 ft. 1 in. Elroy Chinn took a third in the broad jump with a leap of 22 ft. Doug Brown took a fourth in the 880; and to complete the Caltech scoring the relay team came in in fourth place.

Last Meet
Friday afternoon Varsity and Frosh cindermen meet Redlands, in the season's finale, at Tournament Park. By virtue of the Bulldogs' showing in the conference meet, Tech is due for a shellacking. However, a little support from Beaver fans may aid Tech trackmen in garnering points.

100—Welsh (P), Brownell (W), tie for third between Barton (W) and Hackleman (R). Time 9.9s.
220—Barton (W); Hackleman (R); Hays (W). Funk (C). Time 21.9s.
440—Inman (O), Sabichi (P), Dunning (R), Smith (R), time 50.0s.
880—Martini (P); Wagner (R). L. Weed (R). D. Brown (C). time 2 m. 0.4s.
1 Mile—L. Weed (R), Lee (O), Moreman (P), Everson (R). Time 4m 30.9s.
Two Mile—Livingood (R), D. Weed (R), Heaton (R), Olshausen (R). Time 10m 29.1s.
220 Low Hurdles—Schroeder (C), Welsh (P), Beaudrand (W), Wallner (R). Time 24.3s. (new school record).

(Continued on Page 6)

ambulating Pellet Pounders pranced proudly into the park to have at it with our little neighbors in Eagle Rock Monday. It looked like a shoo-in after the fourth inning for the Beavers with everyone playing brilliant ball, but the fatal fifth spelled doom for the battling batsmen of the Institute. Most Merry-go-Rounds have painted horses going round and round; the one in Tournament Park had Orange and Black Tigers. By next year Bam's arm should be in better shape which might prove to be the key to a better season.

(Continued on Page 6)

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CHAPMAN AND LAVERNE LOSE TO BEVONINE

Coach Ed Preisler's Varsity baseball team ran up a two game winning streak last week with a 6-2 verdict over Chapman Tuesday at Tournament Park, and an 11-5 win at La Verne Saturday. Glenn Chaffee pitched near shut-out ball in the Chapman game, while his mates were pounding out 10 hits. Tom Petrusas, Milt Strauss and Chaffee each got two hits.

Beavers Hit La Verne

The Beaver bats really boomed at La Verne, as everyone in the lineup collected at least one base knock for a grand total of fourteen hits. Chaffee, Bruce Hedrick, and Chuck Norman each pitched three innings. Chaffee did not allow a hit or run during his stint on the mound.

Box Scores:

	R.	H.	E.
Chapman	0	0	1
Caltech	2	0	2
Nagai and H. Brown; Chaffee and Petrusas.	0	0	1
Caltech	0	0	2
La Verne	0	0	0
Odom and Masters; Chaffee, Hedrick, Norman and Petrusas.	0	0	0

BEAVER GOLFERS

(Continued from Page 5) bers 2 and 6 respectively for the Beaver team, were the only ones able to take all of the three points at stake in each individual match.

Meet Pomona

This Friday will see the Beaver team on their home course, Montebello, battling it out with the conference-leading Pomona group. A victory for the Tech team in this match would possibly put them in first place in the conference, by virtue of total points won in the matches played to date.

SCORING

Revay (C) halved Smith (R); Benton (C) def. Johnston (R), 2 & 1; Rieger (R) def. Sims (C), 1 up; Moffat (C) def. Peterson (R), 2 & 1; Flora (R) def. Burrows (C), 2 up; Barrie (C) def. Henning (R), 3 & 2.

BEAVER BABES

(Continued from Page 5) Tigercubs could gain control, two more men scored in the inning.

Oxy Scores in Eighth

The Beaverbabe downfall came in the fantastic eighth, in which Oxy scored 9 runs on 7 hits and 6 Caltech errors. Catcher Walt Pfeiffer came in the ninth to take over pitching chores from Stallkamp, and gave a fine performance in his debut as Frosh moundsman.

Sturdevant again struck out 15 Beaver batters, and held the Engineers to 5 hits. Oxy batters pounded out 20 hits off of Daily, Stallkamp, and Pfeiffer.

Meet Pomona Friday

Tomorrow the Tech Freshmen squad travels to Pomona in their first and only game away from home this season. In a previous meeting the Sagechicks rapped the Beaverbabes 15-3, and are favorites to repeat a win.

Score:
Oxy
Caltech
Sturdevant and Wheaton; Daily, Stallkamp, Pfeiffer and Pfeiffer, Bates.

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LOST—Ring of keys about two weeks ago. Walter Mudgett, Fleming 76, Sy. 2-9562.

SWIM MEET

(Continued from Page 4)

to take 1st place in the Medley Relay with Tech pushing a close second. In the 220 yard free style Oxy's Scoles will take first without trouble while Dixon and Curry of Caltech fight with Oxy's number two man, Evans, for second place.

Free Style

The 100 yard free style should see Oxy's men, Crosby and Wolfe, at 1st and 2nd with Caltech at third. Tech will definitely take a back seat in diving while Oxy will sweep the field.

In the 150 yard back Techmen, Montgomery and Hall, will show strength with 2nd and 3rd, but Occidental again stands best chance of 1st with Wadsworth.

Breast, 440 Free

The 200 yard breast stroke can go either to Butterfly Bill Palmer or to Oxy's Brubaker. Bill Palmer has dropped the event to the Tigermen twice already, but his time has since dropped below either of those races.

The next to last event, the 440 yard free style, will see Oxy, Oxy, and Tech at 1st, 2nd, and 3rd, with Redlands and Pomona tailing.

The 400 yard free style relay will go to Oxy, Tech, Pomona, and Redlands in that order.

Dark Horse

Whittier is still the dark horse,

BEAVERS BEST

(Continued from Page 4)

through with rousing victories for the conclusion of the singles matches.

Singles Decisive

Caltech had won the contest without the help of a solitary doubles match which is something of a record in itself. To give us an additional margin of victory, Larry Nobles and J. C. Bear captured their doubles match with little trouble.

Last Matches

Three conference matches remain to be played before the netmen can relax, but the deciding match will be that with Pomona on Wednesday, May 12, on Tournament Park courts.

OXY ANNEXES

(Continued from Page 5)

120 High Hurdles—Lawrence (O), Schlegel (O), Beaudrand (W), Wallner (R). Time 15:25.
Relay—Occidental, Pomona, Redlands, Caltech: Time 3m 25s.
Shot—Tyson (C), Yates (W), Levin (O), Fain (O), 47 ft. 5-8 in.
High Jump—Tie for first among Doty (O), Laughead (W), Robinson (P), and Price (W) 5 ft. 10 7-8 in.
Discus—Tyson (C), Colbath (P), Mertens (R), Pearson (O) 135 ft. 7 1/4 in.
Pole Vault—Tie for first between Walt (C), and Berokoff (O), 13 ft. 1 in. Crandall (W) tie for fourth among Lapp (P), Pike (O), and Henry (O).
Broad Jump—Brownell (W), Tucker (W), Chinn (C), Harris (W), 22 ft. 11 1/4 inches.
Javelin—Coster (O), Flowers (R), Utman (P), Elias (O), 187 ft. 9 in.
Final scores: Oxy 39 5/12, Redlands 36 2/3, Whittier 35, Pomona 30 1/12 CAL-TECH 24.

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TALKIN' IT OVER

(Continued from Page 5)

Which brings me around to putting in a plug for the little talked about managers who put in twice as much work and get half as much credit as the guys that compete. This past year we have a group of men that took plenty of the load off the coaches' backs. Andy was saying the other day the Bill Jarmie was as good as two assistant coaches and he wished that more men would sign to give him a hand out there.

however, and can upset any of these predictions. The Poets could be a blessing in disguise by robbing the Tigers of their point in free style while Tech came through with the other events, thus making it a close three-way race.

Good Work

Speaking for the rest of the men on the cage five, I can say that Englar and Smoot were infallible in seeing that the men had every piece of equipment needed plus putting in plenty of extra hours providing milk, soap, keeping the %1b\$@! Armory in shape.

More Needed

This term's squads are ably cared for, but mostly by Freshmen or Juniors. It was originally intended that the senior manager be a Senior. But lately only Sophomores and Juniors have been applying for the job. If any of you are interested in serving in the capacity of manager, the two Queens of the Athletic Department, not to mention the coaches, will welcome you with open arms.

FROSH NETMEN

(Continued from Page 5)

and won easily. Thorne Butler took his match after going three sets and Crosswhite required three sets to win his match. In the doubles Martin and Blanchard had their own way all the time.



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