

THE WORST SHOCK played havoc with this area near Shaw Creek bluff. Arrows indicate fissures in solid rock opened by the shock of the quake. At foot of bluff are landslides which occurred at many places.

MANY FRACTURES were to be found in the lake ice near Tananacross. Violent shocks cut the ice cleanly, often leaving cracks three-quarters of a mile long and thirty feet wide.

Collegian. Photos by Professor Richard Ragle.

Series Of More Than 200 Earthquakes Reaches Climax In Tanana Valley Area With Violent Shock October 15

More than two hundred earthquakes ago, on August 5, the Tanana Valley began a series of sinuous convulsions reminiscent of a conga line that progressed gradually to a climax during the week of October 15-22. The series of violent shocks caused minor damage at wide-spread points, bent steel rails on the Alaska Railroad, shattered the freshly rosen banks of most of the rivers and streams in the affected area, and threw the reflecting mirrors of the college observatory seismograph off their pivots. It also threw a scare into the good citizens of the interior and provided a source of inexhaustible conversation.

Few realized what might be in store for this area as the slight shocks of August gathered their strength and prepared to assert their authority throughout the middle of October. As the series of shocks swung into full stride with the bone-shaking jags at 4:10 p.m. on October 15, no one was left long in doubt and even the least self-assertive tarried not long in indication. In fact, a new record was established for the time in which the "orderly" evacuation of Eielson Hall was made—some of the occupants almost created by themselves their own means of leaving the building. It was a most impressive demonstration—a three-story building emptied of all its occupants in a matter of seconds, and, quite fortunately, not a single soul trampled into the concrete in the process.

PROVEN FACT
It is a proven fact that much of the loss of life suffered in such an earthquake generally is caused by panic—and the subsequent stampede for the nearest exit. Consequently, the exits made from all the campus buildings showed for the

most part superb self-control on the part of all concerned.

Actually, the fracturing of the earth's crust, the shocks were felt and recorded as earthquakes, were "faults" or breaks in the solid rock of the earth's crust. They occurred along at least two separate planes and were fairly well localized within the Tanana Valley. The actual fracture surfaces were deep within the crust of the earth, and such surface disturbance as was manifested was due to those impulses which were transmitted through the rock and alluvium for a distance of about forty miles.

VIOLENT SHOCKS

The affected fracture zones were the "Tanana Fault Zone," a series of fractures which follows the axis Shaw Creek bluff-Wood River Butte-Kantishna Butte-Castle Rock in a direction east-north-east by west-south-west roughly paralleling the Tanana River and the north slope of the Alaska Range, and a secondary fracture belt or shear zone which is well developed throughout the courses of the Nenana and the Dry Delta Rivers. The locus of the actual movement has been calculated to be along the junction of the Tanana Fault and the Nenana Fault at a depth of approximately twenty miles below the surface of the earth.

After the violent shocks of October 15, members of the faculty of the School of Mines and of the staff of the University Geophysical Observatory began an intensive investigation which has led to an unusual and complete recording of the distribution, characteristics, and effects of the propagation of earthquake shock waves. Fortunately, the freshly frozen lakes, river banks and sloughs were shattered by the force of the fast-moving earth waves generated by the many

shocks. The record of the momentary existence of the shock waves thus was preserved for further study and photographic record.

After the first violent shock, the Geophysical Observatory began computations of the shock waves and established points approximately the epicenters of the more moderate quakes which followed, the major shocks being so violent as to paralyze the recording mechanism of the seismograph. Meanwhile, Professors Richard Ragle and Earl Haseline made a reconnaissance by air over the Alaska Highway to the vicinity of Shaw Creek to examine reported landslides along the highway and in Tanana River cuts, and were able to establish the presence of surface faults of small displacement in solid rock at Shaw Creek bluff.

When a sequence of epicenters had been calculated and their locations had defined a specific area, further plans were made to visit

the area to examine the effects produced at points where the activity was most intense. The area was accessible only by air, and the success of the subsequent examinations was made possible by Mr. Douglas Preston, Sr., and Mr. Galen King of the Northern Commercial Co. of Fairbanks, who made available a new Sikorski Flying Station Wagon which greatly facilitated the studies of the results of the quakes.

FIRST EVIDENCES

On October 20, Professors Ragle and Pierre St. Amant of the Geophysical Observatory flew over the calculated surface position of the epicenter area near the junction of the Tanana flats and the foothills of the Alaska Range on the Totolinka River. Here the first evidences of earthquake activity were found in the form of fine cracking of lake and river ice in that vicinity. The cracks were profuse, closed for the most part, and tended to indicate a southwest-northeast shear-

ing component, with some crumpling and overriding in the fractured lake ice.

REACHED MAXIMUM

From the Totolinka the reconnaissance proceeded on to the vicinity of Browne on the Alaska Railroad and thence down the Tanana River to Nenana and back to Fairbanks. From Browne to Nenana, there was at first no sign of unusual activity; then progressively increasing fractures, which cut cleanly through the river ice, frozen sand bars, and even through driftwood frozen in the ice, were noticed. These fractures, few and small at first, increased in frequency and size until they formed a network of shatter cracks that literally covered the river ice and bars at Nenana, where individual fractures more than a quarter of a mile long and several feet wide were common.

From Nenana toward Fairbanks the force exerted by such fractures in the ice and bars of the Tanana River continued to increase, reaching a maximum about ten miles east of Nenana and three miles south of the Tanana, where considerable areas of newly-flooded ground, covered by a network of cracks, was disclosed. From that point on toward Fairbanks, the evidences of shock waves decreased, and the open cracks died out just west of the mouth of the Chena River, some six miles west of Fairbanks.

On October 21, the aerial reconnaissance extended the area of the most severe surface effect of shock waves to the west from Nenana well in to the Coena Hills and south into the middle reaches of the Kantishna River. Within this area, as within that of the Nenana and Tanana, the shock waves passing through the frozen ground and lake ice left an excellent record of their

passage in the form of shatter cracks, some of which were as much as three-quarters of a mile in length and ten feet in width. The average cracks in the Kantishna were perhaps ten to twenty percent larger than those in the Tanana River Valley, which indicated a further westerly extension along the front of the Alaska Range of the zone of intense activity.

DISTANCE LIMITS

On October 22, reports from Eagle and Central House, indicating earthquake activity at those points equalling that recorded at College, pointed out the desirability of surveying establishing the distance limits of the local earthquake and determining the probability of other local quakes having been triggered off by the major movement in the Tanana and Nenana valleys. Since such long-range reconnaissance was beyond the capabilities of the equipment available, Colonel Lloyd H. Watney, Ladd Field zone commander, made available a long-range reconnaissance plane. On October 23, Mr. Ernie Wolf, head of the Geophysical Observatory, joined Professor Ragle and Mr. St. Amant in making an inspection of the upper Tanana River, the White River and the Yukon River, covering the area of Eagle and Central House. It was determined there that the severe shocks reported had been due to local fault slippage, probably started by the shocks radiating from the Tanana-Nenana fault zone.

MAJOR EARTHQUAKE

Fortunately, because this definitely was a major earthquake and its shock waves were most severe, damage of a serious nature was rare. There was, of course, shock break primarily bottled goods in many stores and minor breakage. (Continued on Page Five, Col. 1)

It Was Only a 'Moosequake'

During the air reconnaissance of the area in which the earthquakes centered, Professor Dick Ragle and Pierre St. Amant came up with one for the books—a "Moosequake"! In fact, they'll almost wager that this was responsible for many of the vibrations recorded by the seismograph at the University Geophysical Observatory.

Here's Professor Ragle's version of the unexpected competition given Mother Nature:

"After Pierre had computed the epicenter position for the quake of October 19, we felt that we might get some valuable data if we made an aerial reconnaissance the next day. "About an hour out, as we neared the area we estimated was the earthquake center, Pierre spotted something which we felt was significant. Right in the center of the suspected area was a huge fissure—or so we thought for a moment.

"Then, as we circled closer for a better inspection, the whole problem of the repeated earthquake-racking shocks was clarified. There in the center of a small clearing were two of the biggest, blackest bull moose I ever saw, lighting it out. As we watched, they drew apart and then—wham!—rammed violently head on again and twisted and plunged and tossed the snow and sand high in the air with their flailing hooves. "There was the answer—just another Moosequake!"



1937 EARTHQUAKE caused landslides in the vicinity of Mile 35 on the Richardson Highway. This photograph, showing one of the worst slides, is being reprinted from the August 1, 1937 issue of the Collegian.

OTHER FRACTURE CRACKS were found in the Kantishna River. Note pressure ridge by the river bar. Collegian Photos by Professor Richard Ragle.

THE FEELING of being "too close for comfort" must have been experienced by the occupants of the houses on the banks of the Kantishna.

[illegible]

1947 Mining Short Course is Scheduled To Begin on University Campus November 3

The mining short course, given primarily for those persons interested in mining and prospecting, again will be held in the Main Building on the University campus. Instruction is of nine weeks duration and will be given three hours an evening, three nights a week. The course begins November 3.

The course is divided into three main subjects: Mineralogy, Geology, and Mining and Milling. A person may enroll in any or all of the above subjects.

MINERALOGY COURSE
The course in mineralogy consists of lectures and laboratory work designed to familiarize the student with minerals of known or likely occurrence in the Territory. Crystal habits, physical characteristics such as color, luster, specific gravity, cleavage, with simple blow-pipe and chemical tests, are studied in laboratory exercises to develop facility in the recognizable characteristics of the minerals themselves. Some time is devoted to a study of their natural associations, such as mineral veins, and their uses, in order to assist the prospector in confining his search to the more likely places for deposits of the various minerals.

GEOLOGY COURSE
The course in Geology will cover the fundamentals of physical geology which are directly applicable to the practical problems of the prospector. The geological principles are of prime importance in

the search for minerals as well as the development of mines. Occurrences of minerals of commercial value are likely in certain rock types and extremely unlikely in others, and the recognition of these types will be emphasized. A study of ore forming processes which will assist the prospector in his search will also be included. The University has a large working collection that includes representatives of the rocks commonly associated with mineral deposits in the field.

Discussion of several principles, with laboratory work on rocks and topographic maps are planned to assist in developing an acquaintance with conditions favorable for mineral occurrence.

MINING AND MILLING COURSE
The course in Mining and Milling consists of a series of lectures and laboratory exercises covering prospecting, development of prospects, lode mining methods, and milling operations. The University mill is operated, thereby making it possible for students to see a reduction plant in action. During the course, considerable time is devoted to placing mining methods of prospecting and mining.

In addition to the above courses, lectures will be given on other important phases of mining subjects by guest speakers.

Instruction in Mining and Milling will be given on Monday, Geology on Wednesday, and Mineralogy on Friday. In case of a large class, instruction in mineralogy will be offered on Thursday also.

No college credit is given for the courses; however, an appropriate certificate will be given to all persons satisfactorily completing the course.

Classes will be conducted by the following faculty members of the school of Mines: Mineralogy, Bert E. Griffin and Professor Ray Smith; Geology, Professor Richard Ragle; and Mining and Milling, Professor Earl Beldisline.

Arthur Nagorzuk Elected President Of Education Club

At the October 7 meeting of the Education Society, Arthur Nagorzuk, Jr., was unanimously elected president. Chosen to fill other offices in the organization are Jefferson Jeffers, vice-president; Marjorie Malcolm, secretary-treasurer.

A major objective considered at the meeting is the Society's plan to resume negotiations with Kappa Delta Pi, a national honorary fraternity in education, to secure a chapter at the University of Alaska.

A large attendance of Education majors and minors was present at the October 20 meeting, at which Letoy Scott, Superintendent of Schools, Fairbanks, was honor guest.

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Mine Evaluation Class Visits Pedro Dome Tungsten Mine

On Thursday, October 9, the members of the Mine Evaluation class took a field trip to the Cleary Hill Tungsten Mine on Pedro Dome. Leading the expedition was Professor Richard Ragle, head of the Geology Department, assisted by Stanley LePond, who has been writing his five-year thesis about this mine.

Rich Ore Pockets Visible

Around the mine shaft were large samples of the vein material and the country rock. The mine itself was entered by a sharply-inclined shaft which had levels running off in three different elevations. Miners' lamps were adjusted and the actual exploration of the mine was begun. As the men had been reserved, but Mr. LePond pointed out the more interesting features: the huge bull-quartz vein, contacts between country rock and the vein material, and some rich ore pockets that had not been mined.

The best crystals were discovered by Roger Burke; his bright lamp showed up a veritable Aladdin's treasure in a side corner. Close inspection proved that the reflections came from a large pocket of crystals. Had they been anything other than ice, they would have made an excellent display.

50 POUND SPECIMEN FOUND

The samples actually collected were good. Duke Knifren found some fine specimens on the third level. Mr. LePond made complete samples across all of the good contacts, and Professor Ragle discovered some ore pockets that had apparently been overlooked by the miners. The largest samples came from the surface dump, where one specimen of over fifty pounds was acquired.

When the expedition arrived back at college, an examination of the samples was made under the University's ultra-violet lamp. The results were good; most of the speci-

mens fluoresced beautifully. The fifty-pound "hand specimen" showed a contact surface between the vein and the country rock and proved conclusively that only the vein material contains the fluorescing ore mineral. Mr. LePond prepared to make some microscopic slides for future examination.

During the late war, the Cleary Hill Tungsten Mine was quite active; tungsten was one of the critical metals. Today, however, government subsidies have been discontinued, and the mine is unable to operate at a profit.



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All motor tours to Camp Eielson and Wonder
Lake from McKinley Park Hotel have been
discontinued for the winter

THE ALASKA RAILROAD

Ruth Ogburn Takes Trip By Plane to Northern Alaska

Miss Ruth Ogburn, instructor of chemistry at the University of Alaska, is making the first of her small cargo planes "flying up and down and around" Alaska. Her party which landed on beaches or places where there were no regular landing fields, was greeted with enthusiasm and welcome in all of the out-of-the-way places where they stopped.

At the first stop, Kotzebue, they were surrounded by a group of Eskimos gathered in further "saloon"-covered parkas and wearing the traditional caribou hood. The girls customarily wear akulekhang mail-order dresses. Kotzebue is the largest trading community north of Nome. In addition to the native dwellings, there are four stores, a hospital, several churches, and a territorial school. Eskimos from the Little Diomed Islands came over in their hand-made umaks to trade; the outboard motors used by some to propel these native craft strike a rather inconspicuous note.

On the next stop, provided good food served by Lella in a rickety, old restaurant whose floor is getting higher and higher—"the floor is the living floor; they just add another plank."

At Wainwright, the entire village turned out to greet all planes.

Series of Earthquakes Reaches Peak October 15

Continued from Page One

In many homes where mirrors and dishes jumped sideways and then just obeyed the law of gravity. The Alaska Railroad reported most damage. This was quickly repaired, to its tracks in two points and the settling of track at third main line, as well as occasional cracks in station house walls along the route of the quake. In contrast, however, to the damage reported, the Experimental Farm at College made known a benefit. Prior to the quake, the Experimental farm had experienced difficulty in getting enough water from its well. Now the well is producing all the water desired!

Preliminary structural studies of the Tanana Valley and its environment indicated the probability that this earthquake series has been due to the release of tensions built up in a considerable period of time. The nature of the earth structure involved might be likened to a block some two hundred miles long from east to west and approximately seventy miles wide at its widest point. This block is being tilted slowly, the southern portion being lifted gradually and the stress involved being relieved by faulting, or breaking, along the northern side, which acts in the manner of a hinge, when the stresses have accumulated beyond the strength of the rock involved.

PERIODIC REPETITIONS

It seems most probable that there will be no more violent shocks for some time to come, as the accumulated stresses probably are well dissipated and nearly in equilibrium. However, periodic repetitions of similar activity of equal violence may be expected from time to time in the future. Future activity may exceed the recent exhibition in intensity and may be of shorter duration, or may consist merely of a pronounced series of shocks which could relieve equally well the accumulation of stresses. The time interval between this period of activity and the next can be expected to be several years. In the past there is record and remembrance of periods of earthquakes at intervals of about ten years, and the future should bear out this pattern. Studies into the exact nature of the present series of shocks and into the details of structure associated with the causative factors are being continued. A gravimeter is being provided for the purpose by the U. S. Navy and Dr. B. S. West of the Physics Department expects to make a gravity study of the area of the presumed Tanana and Ne-

nana faults in the early future.

Recording and analyzing of earth tremors by the Geophysical Observatory are being continued and special efforts to define the fault planes and to establish the rhythm of fracture occurrences are being made.

IMPORTANT INFORMATION

All towns, villages and stations on mail routes have been circled by the Geophysical Observatory and it is hoped that the information now beginning to come in from these circles will contribute a great deal of important information which otherwise would not be available.

Statistically, this has been a widespread and potentially destructive series of earthquakes. Of the more than two hundred recorded shocks, only thirty-three have been of "Strength Three" ("Strength 12" represents total destruction) or more, but many of these have reached a strength sufficient to have caused devastation had they occurred in their maximum violence in any major center of population.

As a whole, the recording of quakes of "Strength Eight" or more has been limited to a comparatively small area which is a considerable distance from any present concentration of population.

It is probable that much greater knowledge concerning the exact force and the direction of maximum shock wave propagation would have been obtained with more modern instruments. The instrumental studies of the quake have been hampered by the lack of a strong seismic instrument and by the absence of other seismographs in interior Alaska.

The nearest seismic station is located at the Coast and Geodetic Survey station at Sitka.

A final and fully technical report of the earthquake series will be published in the Collegian at a later date.

1937 Earthquake Shocks Reached Greatest Magnitude In Area Near Salcha Bluff on Morning of July 22

The following information concerning the 1937 earthquake series registered from the August 1, 1937 issue of the Collegian. It is interesting to note that the quakes of 1937 and 1947 originated in the same general area.

SIXTY TREMORS ON JULY 22

The initial shock which reached College at nine and a half minutes after 1:00 a.m. July 22 was by far the most severe shock since the installation of the University seismograph in November, 1938. In fact, the instrument recording North-South movements of the earth was temporarily incapacitated by the first impulse, the mirror which is coupled to the horizontal pendulum and which reflects the

recording beam of light being knocked off its pivot. The other instrument recording motions in East-West direction remained in working order, but the magnitude of the motion in this direction was too great to record.

SLIDES OVER HIGHWAY

However, a series of more than 60 distinct tremors, most of them of sufficient intensity to be evident and probably coming from the same general location as the first shock occurred at intervals throughout the afternoon and evening of July 22. Seismographs were obtained of most of these and calculations showed the epicenter to be between 40 and 50 miles from College, with the earth movement in the North-South direction.

Library Notes

The following books have been added to the library:

- Home Economics: Bhoplin, "New Encyclopedia of Sewing"; Fishman, "Marriage"; Groves, "Marriage"; Featherstone, "Elementary Costume Design"; Klock, "The Complete Home Decorator"; Linn, "Your Carriage, Madam"; Miller, "Furniture"; English, Anderson, "Eleven Verses Plays"; Cecil, "Hardy, the Novelist"; Frost, "Collected Poems"; Hardy, "Collected Poems"; Housman, "A Shropshire Lad"; Last, "Poems"; Lindsay, "Poems"; McDonough, "Representative English Novels"; Moore, "Moore and Alford"; Stein, "Selected Writings";

Geology: Forrester, "Principles of Field and Mining Geology"; Levermore, "Minerals in World Geology"; Adams, "Banner by the Warlike"; "Your Home"; "Your Deedings"; A B C; Rockaway, "Creative Home Decorating"; Sweeney, "Growth and Development of the Young Child"; Tolsonoff, "Foot Boogers Information Book"; Tilton, "How to Frost";

Design and Make: "Smart Cloth"; Wilson, "Style on a Shoestring";

Mining and Metallurgy: Ecker, "Laboratory Manual in Metallurgy"; Barrett, "Structure of Metals"; Palmer, "Tool Steel Analysis"; Trichart, "Ferrous Metallurgy"; Woodman, "Physical Metallurgy Laboratory Manual";

Musical: "The Great Symphony of Themes"; Even, "The Book of Modern Composers"; Gehrkens, "The Fundamentals of Music";

"Harvard Dictionary of Music"; Jacob, "How to Read a Score"; Scholes, "The Complete Book of Great Musicians"; Somerville, "Music of Latin America"; Tennyson, "Berthouze";

General: Quinones, "Inside U. A. A.," Edman, "Philosopher's Quest";

Dostoevsky, "Short Novels"; Untermyer, "Treasury of Laughter";

Adams, "Banner by the Warlike";

Merrill, "The Strumpet";

Hobson, "Gentlemen's Agreement";

DeVore, "The Web of Days";

Guthrie, "The Big Sky";

Leconte du Noy, "Human Destiny";

Muller, "Permanence Book";

Tilton, "How to Frost";

Bancroft's Works Given to Library

Included in a recent shipment of books to the library are "Great Races of Mankind and History of the World, the same being volumes III and IV of Eldridge Library. These have been sent by Helen D. Brosius, wife of the late Cal M. Brosius of Seward, who had expressed a desire that his complete set of Bancroft's Works be presented to the University of Alaska. After her own donation, Mrs. Brosius sent the fine collection of nine Naxos tapes.

The late Mr. Brosius lived in Valdez for several years. Later, when residing in Seward, he was engaged in business with Jack Noon. Elected to the Territorial Legislature, 1893 session, from the Third Judicial Division, Mr. Brosius showed a great deal of interest in the cause of higher education. He gave splendid support to President Bunnell in his efforts to secure appropriations for his university. It was at this session that the first appropriation was made for the construction of a fireproof building for gymnasium, library, and museum.

Send a gift copy of the Collegian to your friends for Christmas.

Subscriptions will be available in the Collegian office, 212 Eichen Building, November 15.

Dr. E. J. Baggen

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NORTH POLE BLDG.

Fletcher Letter Is Received

A letter from former professor Dr. James Fletcher now residing at 4172 38th Street, South Arlington, Virginia contains an interesting clipping from the Washington Post, October 14.

The story entitled "American Correspondents in Europe," has this to say about George W. Polk, Jr., Class of '38. "In Greece and the Near East, such reporters as Philip Potter of the Baltimore Sun and George Polk of the Columbia Broadcasting System send out day-to-day reports that place developments in a larger frame of understanding."

The University is pleased to hear of Polk's success in his field.

"Visual evidence about the intensity of the disturbance probably was of greatest magnitude near Salcha Bluff just beyond the 31-mile station of the Road Commission, where slides covered the highway for some distance and made holes and large cracks were formed. The cracks visible here at numerous places along the highway toward Fairbanks, were heterogeneous in direction and indicated lines of weakness where the relatively soft surface soil had given way under the waves of pressure spreading from the source and transmitted through the hard, frozen strata.

"As far as is known, all of the buildings on the campus withstood the severe test without appreciable damage."

"Up to noon on July 23, a total of more than 10 tremors had been recorded on the University seismograph, and additional records were still being obtained."

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BUMBLINGS AUDIBLE

"The violence of the first shock indicated an adjustment of major magnitude along some fault plane. The occurrence of such a large number of subsequent shocks is unusual. Where the stresses compound themselves with the fault plane, some point becomes greater than the adhesion (or cohesion) of a local slip plane takes place. This causes a redistribution of stresses and strains, the local relief of strain being followed by increase of strain and stress in all adjoining parts of the fault plane with the result that the adhesion is overcome in these cracks and the area of incipient faulting enlarged. Thus from the initial crack, the tension is propagated through all the fault planes. The total movement of dislocation at each point being accomplished by a series of steps and not at a single leap as it must often be. The bumbings audible at frequent intervals over a wide area are prob-

ably associated with the sudden shifts of large quantities of material beneath the surface of the earth.

NINETY TREMORS FELT

"No surface indication of the main fault was found in the vicinity of the highway. Perhaps a careful survey from the air will give more definite information on the nature and extent of the fault."

"Up to noon on July 23, a total of more than 10 tremors had been recorded on the University seismograph, and additional records were still being obtained."

"As far as is known, all of the buildings on the campus withstood the severe test without appreciable damage."

Adresses Wanted

The Editor of the Collegian will appreciate the response to call for the addresses of former students:

Orville Backster, Stanley Black, Brooks Drayton, Lella Hestler, Leonard L. Newman, Virginia Reister, Owen Wright.

ANNOUNCEMENT

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Mehler Is Named Mat Coach

The University sports program will be helped by the addition of a wrestling squad. And, despite the fact that the men who reported are all near the same weight, which prevents the formation of college weight classes, competition still may be arranged for the squad if sufficient progress is made by the mat candidates.

Coaching the squad is John Mehler, University librarian, who wrestled for three years at Washington and Lee University. Despite a nine-year layoff from the sport, Mehler still has had the benefit of continuous work in top level collegiate circles and should be able to turn out a good squad.

Reporting for the first practice were Owen Rye, Joe Edwards, John Dickenson, Curtis Wilson, Herbert Lane, James Williams and John McGill. Walter Fluegel has been named manager. The first session found all of the candidates good of a put of after the first few minutes but good conditioning should be effected within the next few weeks.

Present plans call for practice sessions Tuesday and Friday at 3:30 p.m. It is hoped that more mat enthusiasts will turn out to bolster the squad.

Seven Turn Out For First Session Of Boxing Workouts

Seven prospective boxers participated in the first scheduled boxing session on the campus since the beginning of the war with workouts October 28. The group under the direction of Sergeants Wilbore and Lohard of the R.O.T.C. staff, met Tuesday and Thursday afternoons at 3:30 for an hour's instruction.

Members of the class are Walter Fluegel, Clayton Wells, C. G. Wray, Ben Reulson, Ray Williams, George Martin and Richard Blodin. "Anyone interested in turning out for boxing is welcome to come out at these hours," said Fluegel, who is acting as chairman of the group. "We hope to add a great many members to the organization and perhaps will be able to schedule matches later on in the season."

Sellout Looms For B.A. Bouts

Members of the Business Administration Club have turned promoters! In fact, they're out to outdo Mike Jacobs in the field of boxing promotion.

The club, spying a "natural" bout in the form of a struggle between "Daring Dan" Stargulewski and "Dirty Dalton" Smith, has secured the services of Mike "Jacobs" Cammino as the brain behind their coming program of November 14. As a result, the first serious attempt at movie comedy this campus has seen its money a day now in on tap.

It'll be a "grudge" bout. Fluegel, the impetus for the purchase of the inevitable third party, who has sent three or four verbal friends on separate paths. To settle their grievances, the two agreed to come to the aid of the group, ring, a la Margie of Queensbury. The preliminary card will include three three-round bouts, capped by the scintillating talents of Gloria Kasekman, who will appear in a

Speedy But Inexperienced University Basketballers to Open 1947-48 Conference Card Against Sportsman Five Nov. 11

A hustling, speedy — but green — University of Alaska basketball team will open the 1947-48 cage season Tuesday, November 11, against the Sportsman five at Fairbanks High school gym.

The Bears, minus their entire weight of last year, the outfit which tied for the Farthest North Conference title, will present a line-up which may be composed entirely of men new to the campus. For Coach Bob Isaac was dealt an unexpected blow when the heavy schedule of both Fred Brubaker and Jeff Jeffers prevented the two newcomers of the 1946-47 varsity from repeating their first. As a consequence, only Harry and Frank Cashen, Dick McCormick, and Leon Laubach of last year's Jayvee squad are left as the nucleus of this year's first-stringers.

FIRST STRING

Heading the parade in the scrum for varsity berths are Ed Hutter, Phil Stern, Ray DePriest, Ray Winick, John Asy, Roger Burke, Dave Siver, and Merrill Thomas. This group, together with the four freshmen, will give Isaac balance, speed and hustle, but as yet no sharpshooters of the caliber of Dick Doole and Dick Johnson, last year's stars, have turned up.

Also in the battle for the first squad, but lacking experience, are Joe Edwards, Hal Sherman, Howard Martin, Dick Blahde, Oliver Ansd, Ralph Hest, Walter Seawalkin, Sidney Joseph, Dick Clatty, Platon Gerachis and Paul Brunelle. Eight of these players are freshmen and all possess potentials which may be developed with a year of collegiate competition.

Of the new men, Ed Hutter comes as one of the best bets for a starting star. Although never having played major college ball, Hutter, a New Jersey, shows the result of good coaching in high school, and natural aptitude. A guard candidate, he is a fast runner and a keen eye for the basket. He'll bear watching.

Another freshman, Phil Stern, likewise may make the grade as a

20

starter. A six-foot freshman, Stern has two years of experience in a tough Buffalo, New York, high school circuit. He, too, is a guard. Ray DePriest, former Palmer High luminary, may be the answer to Isaac's need for a capable center. Towering well above the six-foot mark, DePriest has proved himself a capable man on defense and may be a threat on the offense if he can polish a deadly one-hand jump shot.

HUSTER

Another Palmer guard, Ray Winick, is battling for the same spot as is DePriest. Only 18, Winick is a hustler on offense and defense and may give some of the older men a taste in the fight for the pivot position.

John Asy, a Douglas High product, possibly has more experience than any of the newcomers. Asy played two years as guard at Douglas and then added three more years of competition against fast

service teams. He'll possibly be shifted to forward by Isaac in an effort to provide more scoring punch.

Roger Burke, one of the three men on the potential first squad with college experience on the hardwood, borders the list of forward candidates. Gaining his previous training at Everett, Washington, Junior College, Burke may have an edge over some of the younger men by virtue of his 22 years and four years in independent cage circles.

GOOD SHOT

Dave Siver, the third man with collegiate background, has the much needed sharpshooter. Siver is fast, a good ball handler, and hits the hoop with regularity. He'll see plenty of action as forward.

Merrill Thomas, probably the most rugged man on the squad, could develop into a bulwark at guard or center. A former Fairbanks High athlete, Thomas is sure

and capable at those positions, despite the fact that he lacks speed of some of the others battling for the same spot.

Of the less experienced men, Dick Blide, Platon Gerachis, and Sidney Joseph well may develop rapidly with more competition. Blide, a lanky freshman who towers over the rest of the squad from his six-foot-six-inch mark, has had no experience before but is learning fast. In time he could become anybody's answer for a man who'd be death on rebounds. Gerachis, an other first-year man, is wiry, rugged and fast, although small. He's had high school experience in Washington, D. C. and has the potentialities of a top-notch forward.

Joseph, without doubt the fastest man on the squad, likewise is hampered by lack of experience. He's got a good eye for the hoop but still must learn to get his shot away in a hurry. He'll definitely bear watching.

LACK OF EXPERIENCE

Lack of experience will hurt the Bears during the early part of the league season. Of the nine teams in the loop, U. of A. probably will place the greenest line on the floor when the curtain goes up on the conference card November 4. However, with four or five games under their belts, the Bears should begin to move toward the top in a hurry and again could wind up with another loop title.

The conference schedule calls for the Bears to play eight league games, with four opening at 9:00 p.m. November 11 and closing January 29. At the end of the conference season, the eight top teams in the loop will engage in a conference tournament.

The winner of the regular season will be declared the league champion. However, should the winner of the tournament be a team other than the loop champ, then the two victors will meet in a playoff to decide which team shall represent the Farthest North Conference at the Porthavenous in Anchorage 14 March.

OPEN DATES

Since the league schedule leaves several open dates for the University, Coach Isaac will fill these open dates with games with Army teams. However, these opponents have not been decided on yet. In all probability, the Bears will play an 11-game schedule.

The Junior Varsity will take 12 games, plans for most of which are complete.

The varsity schedule:

November 11, Sportsman; November 23, Elks Club; December 2, Skylanders; December 5, Fairbanks High School; December 16, B.J.J.; December 18, Dreamland; January 1, Civilian Welfare Club; January 20, Eagles.

New Hockey Rink Nears Completion

Hockey soon may be vying with basketball for the University athletic spotlight.

The rugged anatomy fast sport is returning to the campus for the first time since 1941, with the new rink being constructed alongside Eielson Hall slated to be the site of playhym on ice.

Let by Charley Parker, who played on the last U. A. sextet to compete in Territorial competition, the student body almost has completed the new rink. Sideshows are being erected, and the area nearly is ready for flooding. Thus far the ACHA has spent well over \$100 for lumber and other materials for the rink and plans further expenditures for heating equipment such as radiators, bolts, and wiring. The group responsible for the rink construction also plans to install a skating system for the benefit of skaters other than hockey enthusiasts.

SHOOTER PRACTICE

Upon completion of the rink hockey practice will be held from four until five each afternoon. Heading the list of candidates are Parker, Joe Rindl, Ray Benedictson, and Pete Siciliano. To complete a squad of eleven men—four defencemen, six linemen, and one goalie—seven more players must be added. All enthusiasts are urged to turn out when the first call for practice is posted.

The squad needs a coach. None of the members of the ACHA board of the University has engaged in hockey competition. Consequently it is hoped that someone in the area of the College may volunteer his services in order to whip the Bear sextet in shape for games. Until a coach can be obtained, Parker, who has played previously in Anchorage and Fairbanks, will probably handle the coaching chores.

Present plans are directed toward participation in the Fur Rendezvous and the Ice Carnival next spring. Anchorage, which makes its pilgrimages to Fairbanks for the Ice Carnival and in turn plays host to the Fur Rendezvous, supports four hockey teams. Games may be arranged with this team in connection to the coming festivities. Also, if Ladd Field should support one or more teams, the Bears will not competition here. The team is desirous of tackling any and all comers.

It is the hope of the student body to find a permanent site for a hockey rink and construct one of reputation size. The one seen so far in use is just short of normal measurements.

Girls' Gym Classes Take Up Skiing

Now that a few inches of snow have accumulated on the grounds, the girls' gym classes have moved out-of-doors. Although the snow isn't as deep as could be desired for skiing, there is enough, nevertheless, to give the girls a challenge in getting used to the slippery footing under the boards.

The students are enjoying their participation in the sport and under the coaching of Bob Isaac are learning some of the finer points of the game.

Ski Club Members Receive Gift of Ski Tow Equipment

Just a little more snow and the ski season at the University will be well underway!

The Ski Club's 30-odd active members now have the hill below the ski jump almost cleared. They are making excellent progress on the downhill run on Ester Dome. They have been moving rapidly in clearing the three cross-country trails, and they soon will have their new ski tow in full operation. All of which adds up to possibly the best season for

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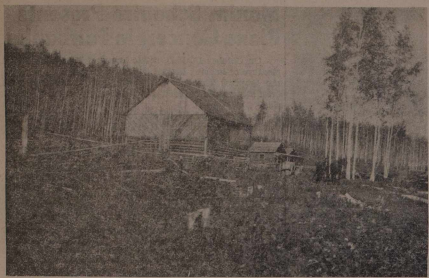
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CLEARING LAND for a homestead gave the early settlers in the Matanuska Valley plenty of labor in the first days of the settlement. This settler was well equipped in the eyes of many, for he had a team of horses to help in clearing his site.

Idea for Settlement of Matanuska Valley Was Sponsored by Harry Hopkins in 1935

This is the first installment of an article on the history and growth of the Matanuska Valley settlement written by Dr. Clarence C. Hopkins of the History Department of the University of Alaska.

In 1935 Harry Hopkins, Federal Relief Administrator in Washington, D. C., sponsored the idea of establishing government assisted colonies in the most suitable region in Alaska. He believed that such a move would aid the growth of the territory, supply farm products for Alaska, and serve as a step toward the possible defense of the coast. Above all, however, it would give a new start to some scores of families fleeing among the fifteen million farmers who were finding it almost impossible to make a decent living for their families in the United States because of prolonged low prices for agricultural commodities, drought, and general depression like that which the agrarian regions of the middle west and south in the late 1920's and 1930's.

The Matanuska Valley in north-central Alaska, some forty miles southeast of Anchorage, was finally selected by the federal administrator as the place most suitable for the "New Deal" experiment in colony planting in Alaska.

The valley, at the head of Knik Arm of Cook Inlet, cugged in by high mountains on three sides, possessed about the best location, soil, and climate for agriculture in Alaska. Back toward Anchorage is the Chugach Range, high enough to ward off part of the rain clouds which drench the Gulf of Alaska coastal regions, yet not too high to shut off the mild winds from the Pacific Ocean. Northward from the Matanuska Valley lie the Teller Mountains and beyond the lofty Alaska Range that act in some degree as barriers against the extreme cold and heat of interior Alaska.

CLIMATE IS MILD
The climate is a unique mixture of the maritime climate of southern Alaska and the decidedly continental climate of the interior, with the mild coastal climate usually dominant. That all the Matanuska Valley comes almost entirely of the uncolonized material deposited by water, wind, or ice during and since the recession of a mighty glacier. The glacier formerly filled the entire Matanuska Valley to a height of several thousand feet above present levels and

to unknown depths below. The present Matanuska and Knik glaciers of the Matanuska Valley are two of the best-known existing remnants of the vast ice mass that once filled the whole valley. The climate is mild, the rainfall generous but not too heavy, and the soil in a considerable part of the valley better for agriculture than in much of Alaska.

The Matanuska Valley long was occupied by the Knik Indians. Sitsa and relics of their former villages are found frequently along the shores of the streams flowing into Inlet. The Russians entered Cook Inlet in the times of Baranoff and before 1807 had established a trading post at Knik. The Russians attempted agriculture at Kodiak and at Nulicheg on lower Cook Inlet. No effort at agriculture was made by the Russians in the Matanuska Valley, however. A few trappers had entered the beautiful valley of the Muddy River—Matanuska—in the Knik Indian dialect means "Muddy River"—before 1807 when little is known about them.

In 1898 gold was discovered by white men in and near the Matanuska Valley. Homesteading in the Matanuska Valley commenced about 1900 but attained no importance until after 1915. During the first years of Woodrow Wilson's office Anchorage was made a federal railway base and with the commencement of the federal-built railway to the interior several families took up land in the Matanuska Valley. In 1916 the Matanuska Agricultural Experiment Station was established in the valley near the trading post of Matanuska. By 1916 there were about four hundred settlers established in the Matanuska Valley. Most of the more

level and more accessible land in the valley was homesteaded during these years when Anchorage was coming into existence and the Alaska Railroad was under construction.

ABANDONED HOMESTEADS

These homesteads of the period before the 1920's attained varying stages of development. The farming carried on was largely of a subsistence type; few settlers possessed modern farm machinery, tractors were not in use, and the possession of a team or two of horses placed any settler among those best equipped. Some homesteaders developed their land to some degree, while others made no effort at development whatsoever. In spite of numerous successful efforts, most homesteads were abandoned within a few years. The list of the many types of good jobs outlined during the great boom of the 1920's caused many homesteaders to leave their land. Scores of these abandoned homesteads existed in the Matanuska Valley after the first wave of settlers had pushed in during the days when the Alaska Railroad was under construction.

The existing Alaska homestead laws and the absence of all land tax encouraged settlers to obtain possession of homesteads and then go on extended vacations from them. The results were undesirable. The original homesteaders may have left for parts unknown years ago but his land claims remained inviolate. A few of these earlier settlers were not attracted by the boom waves outside during the 1920's and stayed on in the Matanuska region.

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'White Hunters of Tigara' Is Published by A. M. N. H.

The American Museum of Natural History has just issued Volume 41, Part 2 of its Anthropological Papers. Featured is an article by Froelich G. Rainey, written while he was professor of Anthropology at The University of Alaska, in 1940. He spent a spring and summer at Point Hope composing an ethnographic sketch of these Eskimos. From verbal accounts of the oldest members, he has constructed a splendid skeleton of this disappearing people. The article is a splendid skeleton of this disappearing people. The article is a splendid skeleton of this disappearing people.

Dr. and Mrs. Rainey set up homesteading in a sod-covered frame building at Tigara in January, 1940. They soon made friends with their 260 Eskimo neighbors and the long evenings were spent recording folklore, recollections, and local gossip. Dr. Rainey was gradually accepted by the hunters as one of them.

These hunts were preceded by much ceremonial and spiritual preparation on the ice by the whalers. The women and children, made age-old observations inside of the houses. The hunters went far afield over land and ice. The geographic Magazine carried pictures and a detailed account of this particular whale hunt in 1946. Contrary to supposition, Native custom does not exclude exclusively around whaling, but includes long trading excursions, and hunts into the interior.

One of the most interesting chapters is on Native Tigara. Originals are retold, spiritual concepts are explained and interesting tales are revealed which seem most curious to us.

Tigara people are reluctant about giving up their old ways of living in favor of "modern ways". Their experiences with missionaries, traders, and government men and sailors have not been conducive to change.

Old Peter Kunig, head of the village council, repeatedly one day that "the Eskimos who had come to Tigara were friendly and interested in Eskimo customs for a short time only, then they turned to their own white comrades and seemed to actually dislike the Eskimo."

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Mrs. Skiolvig Leaves Nov. 4

Mrs. Marion B. Skiolvig, former associate editor and business manager of the Fairbanks-Star Collegian, will leave Fairbanks November 4 for San Francisco, where she will visit with her mother. On December 13 she will leave New York for Paris, France, where she will make her home.

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