

6-25-1937

M.W.A.K. Columbian, Vol. 3, No. 25

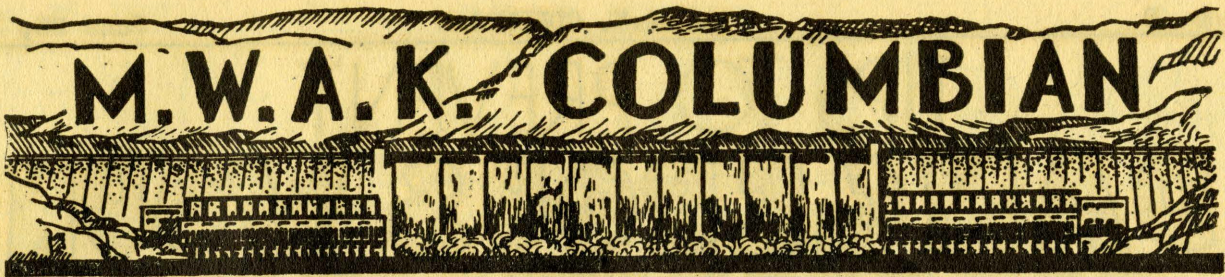
Mason-Walsh-Atkinson-Kier Co.

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Recommended Citation

Mason-Walsh-Atkinson-Kier Co., "M.W.A.K. Columbian, Vol. 3, No. 25" (1937). *Columbian (Grand Coulee Dam newsletter)*. 43.
http://dc.ewu.edu/mwak_columbian/43

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Vol. SAFETY 25
DEPARTMENT

MASON-WALSH-ATKINSON-KIER CO.
BUILDERS OF COULEE DAM

MASON CITY 37
WASHINGTON

"CAT" DEVELOPMENT FACED NEW ERA TO COMBAT EXCAVATION PROBLEMS

One day in October, more than 2½ years ago, overburden began moving from the westingenuity. side. And long before 12 leaves had turned on the calendars, changes occurred that had much to do with muck removal. The changes were added testimony that a construction company can also become a manufacturer of its own mechanical improvements when necessary or advisable. Before four months of active dirt removal had gone by the boards, certain excavation equipment had been changed to new-acting machinery. How this was done and why constitutes a story---

Ordinarily clay weighs about 2,800 pounds per cubic yard, but engineers and workmen here early found out that much of the hard-packed clay weighed 600 pounds more per cubic yard. It also had a moisture content of from 20 to 42 per cent. The immense weight of earth, its stickiness both as conveyed material and as a roadbed, steep inclines, huge granite burdens, continuous three-shift operation--all these provided probably as severe a test as excavation equipment has confronted. In some particulars equipment failed to pass the test. Certain parts broke, wore out quickly, or were inefficient from the beginning. The only thing left to do was to

In addition to numerous changes on trucks (Vol. 3 no. 20), caterpillars show some marked differences. Take the bulldozer, for instance. The heavy scraper-blade on the front of the "cats" has long been used for working against hard clay masses, earth slopes, or rapped areas. The blade was subjected to a terrific strain that brought about two changes:

Both arms for the dozer had been composed of two pieces joined by a knuckle, but when the knuckle became worn, it became loose, the arm was wobbly and consequently the bulldozer. And so the two-section arm was eliminated. A heavier arm acted as one unit from the back of the caterpillar to the dozer. This left no working part on the arm to become loose and the blade unsteady.

Great pressure on the face of the 'dozer gradually forced the middle of the blade to "dish" inward for early stages of work. This increased the pressure on the middle of the blade and decreased the efficiency of the 'dozer. Consequently, new braces
(Continued on Page 5)

SAFETY PAYS

TIPS TO PREVENT DANGEROUS WOUNDS

None can deny that now and then accidents come up that can result in serious injury. No one can tell what occasions may arise in the future which might bring prolonged disability or pain. In either case, even a knowledge of the bare rudiments of first aid could be a preventative of serious consequences.

Several classifications of wounds are common here and everywhere. Methods of treatment are simple--

FIRST THOUGHTS ON FIRST AID: Know where first aid kits are, know what's in them, and how to use it. Keep calm, for every second counts. If the condition of the wound suggests it, send for an ambulance. Keep crowds away. Let patient rest.

Ordinary wounds become infected if not given proper care. First stop bleeding; next apply sterile bandage.

BLISTERS--If necessary to open, wipe off with alcohol. With a sterilized needle puncture blister at edge, and gently press out water or blood. Apply sterile dressing. If blister is extensive, inflamed or infected, call for a doctor.

BRUISES--If the skin is not broken, use cold applications to limit swelling. Change to hot applications if pain is severe. The slightest wound must be dressed carefully.

SPRAINS--Sprains always occur at a joint, usually the wrist or ankle. Keep pressure off the injured part. Apply ice cold cloths on the sprained joint until he reaches a doctor. If pain is great, apply splints before moving patient.

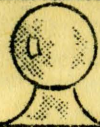
CHEMICALS IN THE EYE--Act quickly. Wash the eye thoroughly and quickly with water. Be sure the water gets into the eye. Get the patient to a hospital.

OBJECT IN NOSE--If foreign body can be seen, it usually can be removed without trouble. Care should be taken not to force it. Don't blow the nose too hard. There is no serious danger if a doctor is seen as soon as possible.

OBJECT IN THE EAR: Do not attempt to remove it, unless it drops readily. If an insect enters the ear, put a drop or two of castor oil or sweet oil into the ear. In every case the object should be removed by a physician.

SNAKE BITE--Tie tourniquet above wound. Quickly make two $\frac{1}{2}$ -inch cross cuts above wound, as deep as snake's fangs penetrated. Let bleed freely. If it does not, apply suction by mouth, tumbler or bottle heated and allowed to cool on wound. Send for doctor. Treat for shock.

FROM THE CRYSTAL BALL



A YEAR AGO

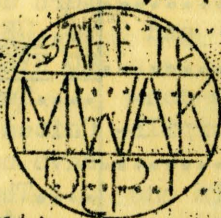
MAX PEARCE still recalls the case of bot-	Temperature reaches 103 degrees (June
tlies but not the steelheads.....	22.-----
E. R. STOKES agrees that the job might	MVAK announces that July 4 will be a
get along without him, but not the fish.	holiday.-----
AD M SLECHT, "Nice little kitty, kitty..	Half the concrete on the west side be-
Get me a shotgun--This broon's no good."	fore river diversion is poured.-----
J. V. DEVINE, arms akimbo, swells proudly	Company schedule calls for daily con-
at the Irish color of the new dinky loco-	crete averages of 6,697 yards daily be-
motives.....	fore river diversion, instead of 5,230 as
W. H. (WINDY) CLARK doesn't broadcast it	before.-----
very widely that he will take the vow to	Cotton Blossom players from Mississippi
morrow.....	present the play "We Are Rising."-----
FRANCIS JASPER--Did you know that he be-	Concrete lining of the grout-inspect-
longed to the pre-school group?.....	ion-drainage tunnel, 475 feet back into
ROBIN DICKSON deeply regrets, in his sob-	the west abutment, has proceeded 200 feet
er way, his desertion of a horse that was	toward the portal.-----
good to him.....	<u>A NAIL'S A FUNNY THING--THE FLESH OF</u>
LENORE BORELLA, looking up and down the	<u>A MAN'S FOOT WON'T BEND ONE, BUT A HAMMER</u>
Columbia, "This isn't either the Poughkeep-	<u>WILL.</u> -----
sie.".....	Begin the installation of five pumps
LOUIS KEE sings the song the robins sing	totaling 37,000 gallons per minute for
as he tosses the acetylene tanks about..	emptying the east side-----
HJALMAR LUNDMAR, "A pickup's gotta come	
along. How can I walk to work?">.....	
W. L. GOODRICH spends hours nightly draw-	
ing dream plans for a dream haven!.....	
MYRON COLE petitions for a pent house for	
his office.....	British soldiers are called "Tommys"
DAVY (JONES) SLEE couldn't catch a whale	because of the British war office once sup-
if someone gave him one. All he can catch	plied the soldiers with a pocket manual,
are "minners".....	hand in sending out forms for information
DAD NEVGARD volunteers to become a guide	the name "Tommy Atkins" was used to design-
for information seekers--especially for	ate any and all British soldiers.....
female guests.....	More than 175,000 separate Federal,
HAROLD EDBURG--One is inclined to wonder	State, and local governments manage public
why he has been sad for so long.....	affairs throughout the United States it is
CAN YOUR FELLOW WORKMAN PERFORM HIS DUT-	estimated.....
IES, SECURE IN THE KNOWLEDGE THAT HE WILL	Some years ago in Cirenaica, Libia, a
NOT BE INJURED THROUGH NEGLIGENCE ON YOUR	census estimated that the camel population
PART?////	exceed the human by 20 to one--five mill-
.....	ion to 250,000 people.....
M. LEET, for some reason or other,	In 1856 75 camels were imported to
goes to bed every night thinking of the	form a Camel corps to patrol the southwes-
regular Seattle week-end.....	tern desert regions of this country.....
JOE HENDRICKSON went Beau Brummel and	<u>WE CAN FURNISH PLENTY OF GOGGLES BUT</u>
brought Mumsey back from Spokane.....	<u>NO EYES.</u> -----
PAUL PATRICK has been losing sleep con-	Twenty per cent of the crime in the
cocting a plan for converting caterpill-	United States is committed by persons who
ars into high speed automobiles.....	have not reached voting age.....
GEORGE STIVERS--Will he just remain one	The average family in New York City
of the hands if he either is or becomes a	pays \$34 per month for living quarters.
clock-watcher?.....

Ood N' End



HOW MUCH WOULD
YOU TAKE FOR YOUR

RIGHT HAND



MECHANICAL IMPROVEMENTS

(Continued from Page 1)

were devised. From each arm a heavier brace reached out as a direct brace against the back of the blade at the middle. This replaced a bar that pressed against a steel strip on the back of the blade, but only about one-fourth the distance toward the middle of the 'dozer.' The bulldozers gave no more trouble.

As for the caterpillar itself: The idlers got the habit of splitting and the idler guides often broke. To overcome these difficulties, one solid idler replaced each two-pieced idler and the guides were extended to clamp under the frame.

It is of no import at the moment, but at the height of earth excavation, tractors kept the grizzlies clean that fed to the once-used excavation conveyor. These cats were originally equipped with the standard tractor shoes, but as many as 100 were lost daily by being caught between the bars of a grizzly. Of new pads that were made here, only about two dozen had to be replaced each week.

An attachment to caterpillars that proved more effective than other methods was the wagon cleaner, used when muck holds fast to wagon or truck beds. A cable-operated scraper was installed on the two arms extending outward from an Allis-Chalmers "cat". A highly effective hydraulic cleaner was added to a "40" caterpillar.

WOOLDRIDGE WAGONS

The 20-yard Wooldridge wagons played an important part in excavation history, but the six presented their problems, too. Each wagon was equipped with a single, large and expensive pump which wore out quickly. They needed replacement. After considerable thought, it was concluded that two smaller pumps working together from a double bracket could be as effective and more practicable than a single large one. The change was made. The double-pump performed one-third better than the single, and with another advantage: The pumps are the same type and

size used on the smaller Athey wagons and on caterpillars. This is the duty that the pumps are now performing, while 20-yard wagons rest near the borrow pit on the east side. The large pumps were usable only on the Wooldridges.

The same wagons have a side dump, but instead of simply upending the bed through the use of hinges along one side, the jacks first slid the huge tonnage to one side until the weight of the earth burden caused the unloading. The jacks could not stand the strain.

Another fault of the wagons, as far as highest efficiency was concerned, became evident at the grizzlies. The slower-acting Wooldridges, sometimes loaded with gluey clay, should have been able to distribute their loads to the grizzlies while in motion, but sometimes they wasted it either before or after leaving the grizzlies.

The principle behind the use of dump trucks and of the smaller Athey wagons was adopted. Hinges were placed under the right side of the bed, two jacks under the left side. The wagons behaved.

ATHEY WAGONS

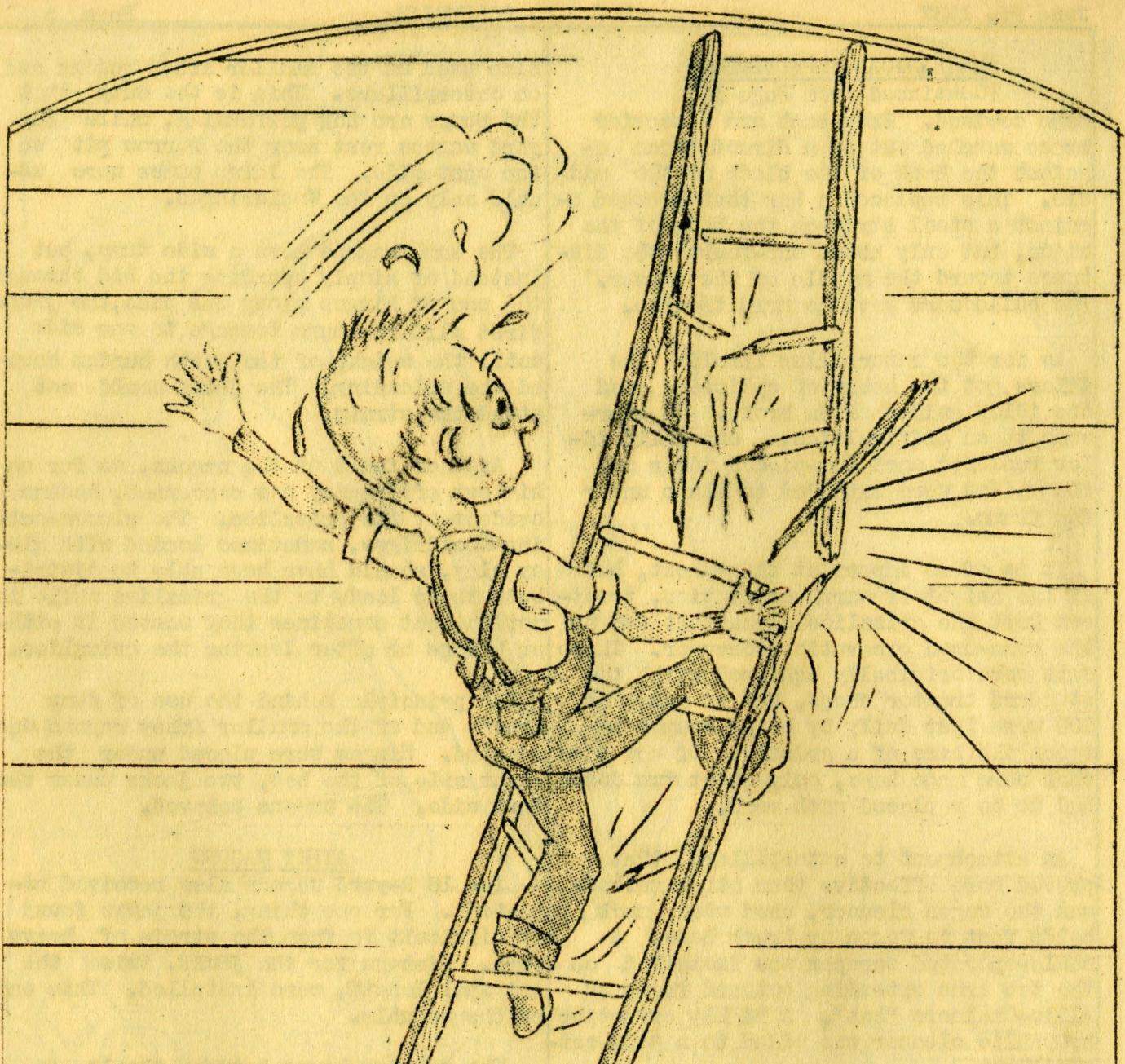
The 18 9-yard wagons also received attention. For one thing, the jacks found it difficult to face the strain of heavy work. Pistons for the jacks, twice the original length, were installed. This ended the trouble.

The walking beams between wheels on each side broke quite often. A heavier and larger beam minimized the danger from breakage.

There have been other changes in equipment to bring about the highest and most continuous point of efficiency, but others are of less significance in the excavation field here for caterpillars, Wooldridge and Athey wagons. The changes, under the direction of J. V. Devine, further bear out such a statement as, "If it won't work right, we'll make it work."

-oOo-

The strain on "cat" drawbar bracket threads was also removed.



Get a Safe Ladder.

Use it right!

NO ESCAPE

You can't shift the blame.

Today, in the year 1937, investigators know that 98 per cent of accidents can be prevented.

They know that when you blame a mechanical or physical hazard for an accident you may be right part of the time. They also know that YOUR OWN UNSAFE PRACTICE CONSTITUTES 75 PER CENT OF ALL ACCIDENTS—and not the physical hazard you are too often given to blame.

This is not any excuse for faulty physical hazards; but because they are only a PART of the problem, the correction of them should be a matter of routine good practice.

The point in a safety program is to find the hazards that cause the most frequently occurring accidents.

And since the unsafe practices of employees constitute the highest number of causes for accidents, it shifts a heavy responsibility upon YOU.

This is a conclusion arrived at by an official in the engineering and inspection division of a nationally-known insurance company.

The conclusion opens one big road for you. It is up to you to accept that fact. By doing so you know that you are not a helpless creature as far as accident prevention is concerned.

Twenty years ago men believed that by correcting physical and mechanical hazards their safety program was complete. Today investigators recognize that such correction is but only one necessary step.

This is the reason we persist in saying, "Be Safety Conscious." When you are you're naturally doing a good job of housekeeping. You advise your fellow workman. You pay attention. You don't become lax in your habits. You don't take chances.

By being safety conscious you're naturally doing all that because you recognize that YOU YOURSELF ARE CAPABLE OF PREVENTING ACCIDENTS.

-oOo-

BLOCK 53, WHICH WOULD BE THE MIDDLE block for outlet works will not contain either tunnels or gates. The block will contain a gallery leading to other galleries in the dam, for grout, cooling pipe and other installation.

IT'S MILEAGE UNDER GROUND

One mile of grout drilling for the month of May brought a grand total of 7.7 miles bored from 30 to 75 feet into bedrock. This involved the placing under pressure of over 20 million pounds of cement down into bedrock to seal off all crevices under the upstream edge of the dam. The cement is equivalent to that used in 50,000 cubic yards of concrete.

B grout drilling (holes 30 feet deep) has meant 28,000 feet. These are drilled before concrete placement. C drilling reached 7,868 feet (after at least 50 feet of concrete has been placed). D holes approximate 4,780 feet (special bedrock holes near the west abutment before concrete).

Included among C records are drillings in the deep east gorge.

-oOo-

NOT LIGHTS FOR A PLAYGROUND

As the rate of concrete placement steps up so steps up the number of electric light globes used by the MWAK.

The month of May saw the use of 11,759 globes against 6,024 for March, electric shop records show. The explanation for the difference lies chiefly in the increase in the use of "dishpans" over lights at concrete blocks as concrete placement increases. The east pit required 480 globes on June 11 and 12, days of heavy rain.

May showed 1,064 60-watt lights; 9,600 100-watt; 3 200-; 24 300-; 14 500-; and 54 1,000s.

May totals for 100-watt globes doubled those for March.

-oOo-

The United States Civil Service commission announces examinations for instrument-maker (\$1.116 to \$1.236 an hour) and for shipfitter (\$1.056 to \$1.76 per hour). Applications will be rated as received and must be filed with the Recorder, Labor Board, U. S. Navy Yard, Pearl Harbor, T. H.

-oOo-

The outlet works in the completed dam will have a maximum capacity of 273,000 second feet of water. This is more water than the highest flow recorded by the Columbia river this year.

-oOo-

Each power house is approximately 765 feet long and 112 feet wide and will eventually be more than 290 feet high.



- SCOOPS -



A pompous local judge glared sternly down at the tattered prisoner who had been dragged before him on a charge of vagrancy.

"You've been around here where 6,000 men are working, but have you ever earned a dollar in your life?" he asked in scorn.

"Yes, your honor," was the response.

"I voted for you at the last election."

-oOo-

WHEN A MAN WANTS HIS HANDKERCHIEF HE REACHES AROUND AND YANKS IT OUT OF HIS POCKET. WHEN A GIRL WANTS HERS, SHE RISES, SHAKES HERSELF, AND PICKS IT OFF THE FLOOR.

-oOo-

You: Let's walk up to the recreation hall and get a glass of beer."

Us: "Walk? Let's run."

-oOo-

He: "Will you marry me?"

She: "Sure. Trial, companionate, or fight-to-a-finish?"

-oOo-

A RUSSIAN DOCTOR USES A STEEL CORK-SCREW FOR RE-SETTING DISLOCATED LIMBS WHEN COMPLICATED BY FRACTURE. IN THIS COUNTRY WE USE THE CORK-SCREW BEFORE THE ACCIDENT.

-oOo-

"What was the most pathetic thing you ever saw?"

"A friend of mine who liaps trying to tell a girl that he liked her size."

-oOo-

THAT MEN SHALL LIVE TO ENJOY LIFE IS THE REASON FOR SAFETY.

-oOo-

A farmer once called his cow Zephyr.

She seemed such an amiable hephyr.

When the farmer drew near

She kicked off his ear

And now the farmer's much dophyr.

-oOo-



"THEY LAUGHED WHEN I STARTED TO MAKE A NEW KIND OF DYNAMITE, BUT WHEN I DROPPED IT, THEY EXLPODED."

-oOo-

"Thank you so much," said the woman to a signalman who had given her his seat in the Grand Coulee bus. "That was very kind of you."

"Not at all, ma'am, not at all," protested the workman. "I know some men don't give up their seats to anyone except pretty girls, but look's don't make any difference to me."

-oOo-

ONCE UPON A TIME TWO OLD MAIDS WENT FOR A TRAMP IN THE WOODS, BUT THE TRAMP ESCAPED.

-oOo-

It's a fact, the following did bring results--10 days ago:

"What are you cutting out of the paper?"

"About a California man securing a divorce because his wife went through his pockets."

"What are you going to do about it?"

"Put it in my pocket."

He did.

-oOo-

WHERE THERE'S A WILL THERE'S A WAY TO KEEP FROM GETTING HURT.

-oOo-

We tried to check as to whether the native told the truth--

An eastern visitor started a conversation with an employee, a native, of the region.

"Tell me," he asked "what is the status of the liquor supply around here?"

"Status?" mumbled the native.

"I mean, is it easy to obtain liquor? Is it plentiful around here?"

"All I can tell ye is that once the water supply was exhausted for a week and nobody missed it."



Catholic Church

CATHOLIC CHURCH--Father A. Farrelly, pastor
Mass will be said next Sunday in St. Benedict's church, Mason City, at 8 a.m. and in Grand Coulee at 10 a.m.

Instructions for children will be given Saturday at 10 a.m. Confessions will be heard in Grand Coulee from 7:30 to 8:30 p.m. Saturday.

Classes in religious instruction will be completed tomorrow in Mason City, but they will begin in Grand Coulee Monday and continue for two weeks. Children are invited to attend these meetings from 9 a.m. to 3 p.m. each day.

COMMUNITY CHURCH--The Rev. W. W. Sloan, Ph. D., pastor

- 9:45 a.m. Church school
- 11:00 a.m. Morning worship
- 11:00 a.m. Junior church
- 7:00 p.m. Three meetings: vesper, junior and senior high groups.
- 8:00 p.m. Friday (TONIGHT), social hour for young people.
- 8:00 p.m. next Thursday, continuation of "Story of Christianity."

CHURCH OF JESUS CHRIST OF LATTER DAY SAINTS AND FINGERS.

--R. E. Nuttal, Superintendent
(Mason City high school building)
10:30 a.m. Opening exercises
11:15 a.m. Departmental works:::
Gospel doctrine; adults
CHURCH history: juniors
Primary

ELECTRIC CITY UNION CHURCH--M.L. Bennett pastor

- 11:00 a.m. Sunday School
- 12:00 a.m. Morning worship
- 6:30 p.m. Young people
- 7:30 p.m. Evening worship

MACHINISTS TURN MANUFACTURERS

The Davenport company turns out the Davenport locomotives, 12 of which have been used here on the job.

In the four new "Rinkies" produced by the Company, the machine shop did as much as the Davenport company did in manufacturing their diesel-electric locomotives.

In building their own locomotives, machinists and welders produced heavier and more substantial results where improvements were necessary. The electric motors, the diesel, and the generator were essentially the only completed parts bought.

-oOo-

Five miles of cable are stored on hand for use by concrete pouring rigs. The entire length of cable on either hoist or boom is replaced whenever any part of the cable shows signs of wear. Cable on one hammerhead operated for 79 days of three-shift concrete placement.

Long use of cable is made possible through the policy of working cable on weights not more than one-fifth the breaking strength of the cable.

-oOo-

MORE THAN ONE-HALF THE INDUSTRIAL ACCIDENTS OCCUR TO THE LEGS AND FEET, HANDS

-oOo-

SEVENTH DAY ADVENTIST CHURCH (in Electric City Union church)

Services are held every Saturday at 9:45 a.m., followed by Bible study.

-oOo-

Estimates on benefits of the completed Columbia Basin project:

- Provide homes and work for 100,000.
- Increase taxable project values to \$217,-485,000.

Increase population of northwest to 1,403,-000.

Increase northwest taxable wealth to \$3,-000,000,000.

Annual return for products, \$110,000,000



Mason City Theatre

LIONEL
BARRYMORE

A Family Affair

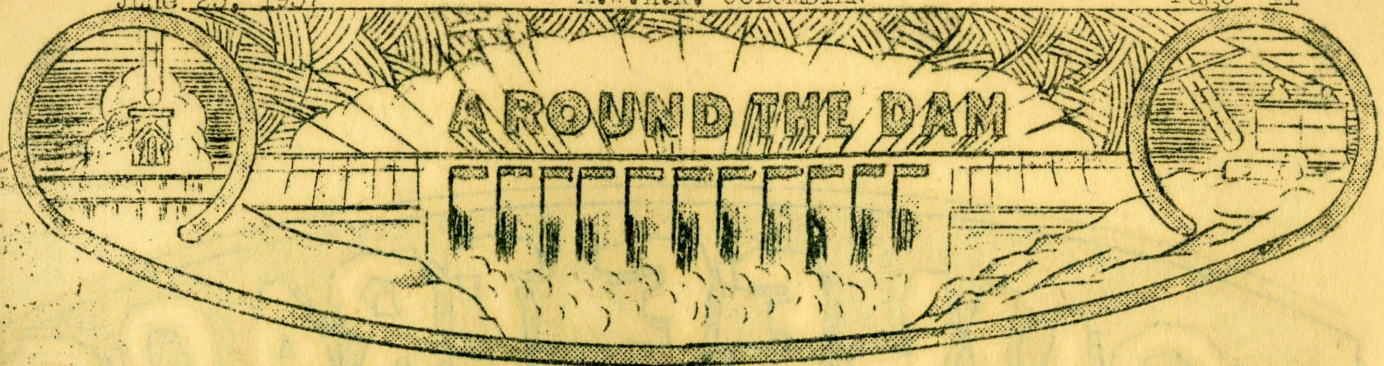
Cecilia
PARKER

Eric
LINDEN

- SUN MON

TUES ONLY

MOVIE SWEEPSTAKES



PREPARE FOR NEW GRAVEL CUT

Brett pit is soon due for dropping downward in elevation at least 40 feet. Preparations are under way for beginning a new cut across the area. Bedrock has been struck at the outer edges of the pit.

Under fabrication now is an 180-foot boom conveyor which will feed to the discharge conveyor from the rim of the pit. The feeding end of the boom conveyor will move on crawlers once used for the main west and east excavation conveyor systems.

The hopper for the boom conveyor will not feed through a vibrating feeder as at present. A new design has eliminated the vibrating feeder for the next cut.

-oOo-

CONCRETE RIGS DUE FOR CHANGE

Crane rigs on the high trestle await only the completion of the closure between the east and west high trestle.

Then the American whirley (No. 21) on the end of the east trestle will be moved to the low trestle. The two Clydes, approaching each other as the trestles join are scheduled to move to the east and west ends of the completed trestle, leaving the hornheads in between.

The whirleys are more adapted for placing concrete near the abutments and can be used for miscellaneous work.

-oOo-

FABLE HAS IT THAT THE OSTRICH BURIES HIS HEAD IN THE BELIEF THAT WHAT HE CAN'T SEE WON'T HURT HIM--BUT DON'T BE AN OSTRICH.

-oOo-

Fifty carloads of cement daily are arriving at the cement silos to keep pace with 12,000 yard-per-day concrete placing.

-oOo-

By today as much reinforcement steel has gone into the dam and power house as will have been used for both the low and high trestle on completion. Six thousand tons have been used.

NEW SILO BEGINS

The ninth steel silo for storing incoming cement saw its first steel placement early this week. The foundation was ready several weeks ago, but further work was impossible because steel had not arrived. The new silo will make it possible to store more than 55,000 barrels in the nine tanks.

The two blending silos are not included in the nine.

-oOo-

RIVER RISE DIFFERS

It's necessary to go back more than five years to find a peak flow of the Columbia river that compares with that of 1937.

In 1931 the river reached a high of approximately 238,000 second feet. This is nearly 10,000 feet less than the 248,000 reached at elevation 963.4 on June 10 of this year. The June 10th mark is the lowest for high water since 1931--if it does not "about-face", and this is not expected.

The most unusual year for the past 25 was in 1926 when the river failed to reach the 960 mark, with a flow of only 180,000 cubic feet per second.

-oOo-

EAST FIELD RIG MOVES

The east field office area will lose a crane rig. A stiff-leg derrick, long in use there, is to find a new home along the upstream side of the center area, near the end of the east high trestle.

-oOo-

WORDS OF CAUTION FROM MWAK POLICE---

Automobiles are not to stop on the highway bridge!

Men are not to try hitch-hiking between the filling station and the bridge immediately after the 4 o'clock shift. Automobiles stopping at the time interfere with traffic for blocks.

-oOo-

COULLEE TRADING
CO.

QUALITY
PRICED
RIGHT!

MEAT DEPT