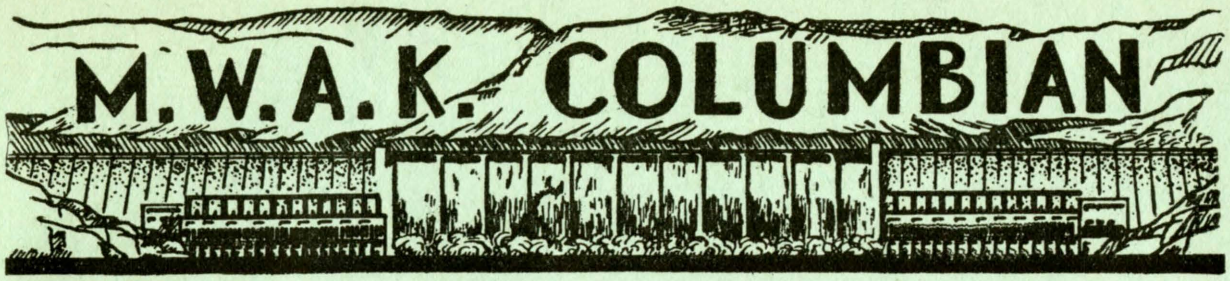
3-1-1935

M.W.A.K. Columbian, Vol. 1, No. 1

Mason-Walsh-Atkinson-Kier Co.



SAFETY DEPARTMENT | MASON-WALSH-ATKINSON-KIER CO. BUILDERS OF COULEE DAM | MASON CITY WASHINGTON

Vol. 1 No. 1 | M. Pete Shrauger Editor Safety Engineer | March 1935

"THE M.W.A.K. COLUMBIAN"

The COLUMBIAN introduces itself to you in this, its first issue!

We hope that you will like it because it is YOUR paper. Each month you will receive a copy filled with items of news and interesting facts concerning your part in the building of this great dam.

Any suggestions, items, comments, or criticisms are as welcome as your cooperation. The esprit de corps and cooperation among you is already noticeable to outsiders. We are glad to hear this, for without cooperation and friendly understanding our best efforts are often wasted entirely.

From time to time we shall give you interesting statistics concerning the project, its progress, all its various phases, and comparative notes of other projects.

A MESSAGE FROM H. L. MYER

I am happy to be able to deliver a personal message to each and every man on this project.

First it is indeed a pleasure to say that the officials of the M.W.A.K. Co., appreciate the cooperation you have shown, by your earnest endeavor, in making this project a success. You are to be commended; for each and every one realizes their duties, and are executing them in a workmanlike manner. Do not at any time let down for by doing so you may cause someone great discomfort.

It is at all times my wish and hope that you take the greatest precautions in protecting yourself and those around you against accidents. This project is very hazardous and in some cases the work new to you, whenever you are in doubt or have any questions regarding a dangerous condition or situation, consult your foreman.

H. L. Myer
General Manager

ATTENTION! ATTENTION!
IN CASE OF ACCIDENTS regardless of their nature, it is imperative that every workman report same to his foreman AT ONCE, not a day, or days, later!

DAMS
Dams ARE COEVAL with civilization. High masonry dams originated in Spain some three centuries ago, but their rational design began with the Furens dam in France less than a half century ago. The different types of dams are:-

1- EARTH DAMS, oldest known and cheapest to construct, an example being the Davis Bridge in Vermont, 200 feet high with an earth-works volume of 1,200,000 cu. yds.

2- MASONRY, or CONCRETE GRAVITY DAMS, also in use for thousands of years, but it was not until the 19th century that a proper scientific basis for their construction was developed. Examples - The Barberine dam in Switzerland, and the Boulder Dam on the Boulder Canyon Project which is about 1,180 feet long on the crest and 730 feet in height above the lowest point of foundation bedrock.

3- ROCK FILL DAMS or embankments of tipped rock with a water-tight skin of concrete, or reinforced concrete. The largest of this type is the Dix River Dam in Kentucky. Height 225 feet. Volume of rock-fill 1,740,000 cu. yds.

4- SINGLE HORIZONTAL ARCH suitable only for narrow gorges with sound rock at the sides to resist the great thrust from the abutments. The largest of this type is the Pacoima Dam, Los Angeles Flood Control Project. Height 380 feet. Thickness varying from 8 feet at the top to 101 feet at the bottom.

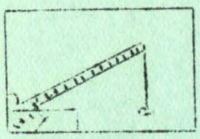
5- MULTIPLE BUTTRESS DAMS in which the water load may be supported and transferred to the buttresses either by reinforced concrete slabs or arches. The Junction Brook Dam of the New Foundland Power and Paper Co., is of this type. It is about 1000 feet long, 75 feet in height, and carries a single line railway.

6- LARGE RIVER DAMS, or BARRAGES. This type of dam is arranged to catch the silt of the river by various means with barrages and flood gates so installed that flood conditions may be controlled at will. The Aswan Dam on the Nile River, the Wilson Dam at Muscle Shoals in the Tennessee River, the Vaal River Barrage whose annual silt burden is estimated at 1,200,000 tons, and The Olive Bridge Dam, forming the principle structure of the New York City Catskill water supply, are types of this dam -G. Bowman

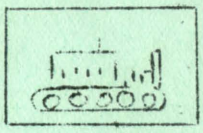
WATCH YOUR STEP

HARNESSED!
At 7:00 A. M. Friday, February, 1, 1935 the great stone gate fell at Boulder Dam harnessing forever by man the Colorado River. This was the greatest dam engineering feat known. When Coulee Dam is completed it will rank first in engineering feats, with the Pyramids of Egypt second, and Boulder Dam third.

CAREFUL ATTENTION TO WHAT YOU ARE DOING WILL
HELP MAKE THIS JOB SAFE FOR YOU AND EVERYBODY ON IT



AROUND THE DAM



MAYOR OF MASON CITY

Mr. E. L. Kier has the distinction of being our first Mayor. Most of the boys are still looking for the cigars that go with the usual political campaign.

THANKS

The COLUMBIAN acknowledges with thanks the kindness of Mr. Jack Hargrove's Department in the designing of our Title plate, and the faithful execution thereof.

KEEP CLEAR OF FALLING OBJECTS

GENERAL SAFETY COUNCIL

A General Safety Council has been formed consisting of one workman from every department combined with the Safety Division. This group will make an inspection tour of the entire project every two weeks. It is the intention of the M.W.A.K. Co., to stop carelessness, to prevent accidents and safeguard their workmen at all times.

SAND AND GRAVEL

Sand and gravel for use on the dam will be brought from a pit on the East Side about a mile and a half downstream.

HIGH DAM

If high dam is authorized by Congress it possibly would not affect the operations of M.W.A.K. for their contract is a unit contract and they would go ahead unit by unit.

LITTLE MISTAKES CAN MAKE BIG ACCIDENTS

RECORD FOR MOVING DIRT

A total of 42,000 cubic yards of overburden were hauled away over belt conveyor during a 21 hour day in February. Let's make it more! What do <u>you</u> say?

CEMENT SILOS

Eight silos, each with a capacity of 5,000 barrels of cement will be constructed before June.

These silos will be built on the East side near the trestle bridge.

The machinery for mixing various blends of cement will also be installed in the same locality.

WEAR SAFETY GOGGLES AND SAVE YOUR EYES.

BREAKFAST

An OMELET containing 150 dozen eggs accompanied by 4,500 "littlepigs" or 32 sides of bacon, or 30 hams; 3,000 hot cakes; 1000 doughnuts; 35 gallons of oatmeal and 75 gallons of coffee; besides fruit, milk, sugar, honey, syrup and other commodities seems a sizable meal but that is at present an average breakfast for the M.W.A.K. Co., employees.

On holidays about 1,100 pounds of turkey are used. Four heavy veal to an average meal, 750 chickens; 1200 lbs of lamb, and 900 to 1000 lbs of potatoes are other food items used in a day.

PAYROLL

This <u>small</u> item at Coulee Dam now runs $121,000.00 per week. M.W.A.K. has $100,000.00 and other contractors on the project $21,000.00.

MASON CITY

What three months ago was only sage brush waste, is now an ultra modern city, with efficient sewage and water system. The forty bed hospital has two fully equipped operating rooms, and is in every respect equal to any large city hospital. It is under the able supervision of Dr. Ross D. Wright. On the ground level of the hospital Dr. G. D. Beasley has opened for the public a modern dental office.

The store building of the Coulee Trading Company houses the general store, soda fountain, post-office, bank and general offices of the Trading Company; this unit is under the direction of Mr. W. E. Kier.

A theater, girl's dormitory, school, city hall, State Police Patrol and a hotel with a capacity of 30 rooms complete the city.

Domestic life in Mason City is on the up grade. There is now being constructed 64 new homes for families, which will range in rentals from $18.00 to $22.00 per month. These houses consist of living room, kitchen and bath. This brings the total of family houses up to 322. The M.W.A.K. Co., can well be proud of their great experiment - The Million Dollar Electric City!!!

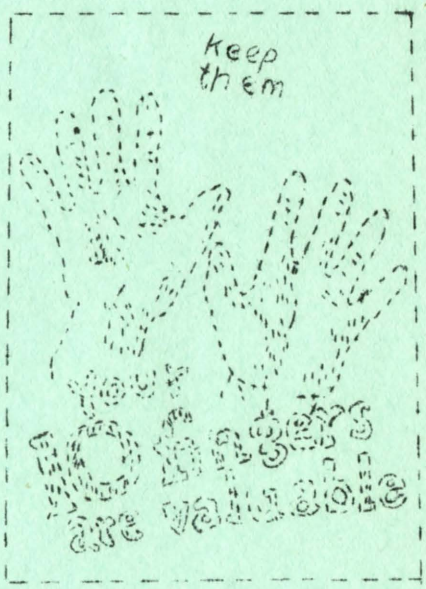
MAKE IT SAFE

A city of ten letters yet only contains three letters of the alphabet... --- ...Walla Walla.

THIS IS A CLEAN JOB

HOW WOULD YOU LIKE TO HAVE A FIRST AID CERTIFICATE ISSUED BY THE UNITED STATES BUREAU OF MINES?

These are easily secured with comparatively a small amount of time and study. First Aid knowledge is always useful wherever you are, at home, at work or on the highway. We now have a First Aid Instructor in the Safety Engineer's Department and are going to have First Aid classes in the near future. All that are interested please register at the Safety Engineer's office, located in the Time Office building.



BE CAREFUL

SEVERE BLEEDING MAY BE FATAL!

LEARN HOW TO STOP IT!

SPORTS

The M.W.A.K. Co., is planning many outside entertainment for the men and families. At present they are contemplating a swimming pool and base-ball diamond. It is also hoped that we will have a REAL base-ball team here this summer.

SOME SIMPLE RULES FOR SAFE LOADS ON CONSTRUCTION WORK

Whenever any material is sufficiently overstressed by overloading it must fail. A serious injury may then result. If you will learn the few simple rules given on this page, and see that they are applied, you may prevent a dangerous accident which might hurt you or a fellow worker.

SAFE LOAD FOR TIMBER PLANK - No. 1 Grade $1\frac{3}{4}$" Actual Thickness.

Simple Rule: For one man working on a 2 inch ($1\frac{3}{4}$" actual thickness, No. 1 Grade) plank, use sound material at least as wide in inches as the clear span in feet between the supports on which it is carried. Use nothing less than a 2x8 on an 8 foot span; a 2x10 on a 10 foot span. DO NOT USE defective plank, 1" boards, 2x4, or 2x6. All scaffolds should be at least two plank wide. Scaffolds ten feet or more above the ground should be provided with a back rail, and a ladder or some other ready means of access.

SAFE LOADS ON MANILA ROPE, OPEN HOOKS, PLOW STEEL CABLE, CHAINS AND SHACKLES. Safe Load for manila rope in TONS is the diameter of the rope in inches squared. Safe Load for an open hook IN TONS is the diameter in inches squared. Safe Load for plow steel cable in TONS is 8 times the diameter in inches squared. Safe Load for a shackle in TONS is 7 times the diameter in inches squared. Safe Load for chains in TONS is 6 times the diameter in inches squared.

Values as given above are for direct tension loads on single ropes and chains. When used in multiple, loads may be increased proportionately. When ropes or chains are used in a sling, loads must be decreased depending upon the angle made by the sling with the horizontal. At 60 degree angle the loads should be reduced approximately to 85% of the allowable direct tension load; 45 degree to 70%; 30 degree to 50%; 20 degree angle to 34%; 15 degree angle to 25%; 10 degree to 18%; 5 degree to 9%.

Illustration: Safe load for a 1" manila rope in tons is 1 ton. For a half inch diameter rope, it is one half squared, or one fourth of a ton, equal to 500 pounds. For a plow steel cable it would be 8 times the above amounts. A plow steel cable sling that would lift on direct tension 8000 pounds ($2x8x\frac{1}{2}x\frac{1}{2}x2000$) will only carry safely 5600 pounds when the lines of the cable sling make an angle of 45 degree with the horizontal (angle between the sling lines is then 90 degree); or 2000 pounds when the angle becomes 15 degree (angle between sling lines 150 degree).

SAFE WORKING VALUE FOR LATERAL RESISTANCE OF ONE NAIL IN FIR OR PINE

Simple Rule: 8 times the pennyweight size of the nail. Illustration: 8d nail will safely transmit 64 pounds; 16d nail 128 pounds.

What you do is the best measure of what you know. What you say has practically nothing to do with it, except to the extent that it correctly indicates what you are likely to do. Those who really know better do better.

GET FIRST AID TREATMENT PROMPTLY FOR ALL INJURIES

CORRECTING THE HAZARD PRIZE MONEY CONTEST!

HERE is your chance to win some EASY MONEY by only a few moments work upon an entry blank! Your IDEA is as good as the other fellow's - maybe better! See if you can CLICK!

A CONTEST IS ON WHICH OFFERS FOUR PRIZES:

1ST PRIZE - TEN ($10.00) DOLLARS!
THREE ADDITIONAL PRIZES OF FIVE ($5.00) DOLLARS EACH!

INSTRUCTIONS: The rules are simple! Turn this sheet over and on the back write your name, badge number, address, occupation, and date of entry turned in. THEN LIST CAREFULLY FOUR (4) of the most dangerous hazards which you have observed, on this project, and suggest how YOU WOULD CORRECT each of them. Be terse, use as few words as possible!

TIME LIMIT: You have from now until 8 A.M. the morning of March 15th, 1935.

TIME OF AWARD: The prizes will be awarded on, or before the 22nd day of March 1935. Awards to be selected and judged by the Safety Engineer's Department.

ALL ENTRIES and THEIR CRITICISMS to be of a constructive nature. No criticism of any hazard that you may enter will in any way reflect upon you nor jeapordize your position. Do not think that this contest can only be won by Superintendents and Foremen, for your idea may be as good as theirs. EVERY MAN ON THIS PROJECT STANDS A CHANCE TO WIN! It is YOUR contest! Now hop to it!

AFTER YOU HAVE COMPLETED YOUR ENTRY BLANK place it in an envelope and seal it. Then bring it to the "M.W.A.K. COLUMBIAN" office in the Time Office (Safety Engineer's Office) or leave it at the checking offices where you deposit your badges.

SAFETY PAYS, IF YOU ARE CAREFUL. YOU PAY IF YOU'RE NOT!

APPLICATION COUNTS

There's an old saying that "It's knowledge that counts." That's only part of it. It's application counts, too. Knowledge, followed by action. A knowledge of safety isn't going to help much unless that knowledge can be applied. All too many accidents can be charged up to failure to do something that should have been done; to unsafe conditions that were known and should have been remedied. "Putting off" is bad business in any business--and especially in the all-important business of preventing accidents.