

2-20-1941

## Columbian, Vol. 7, No. 4

Consolidated Builders

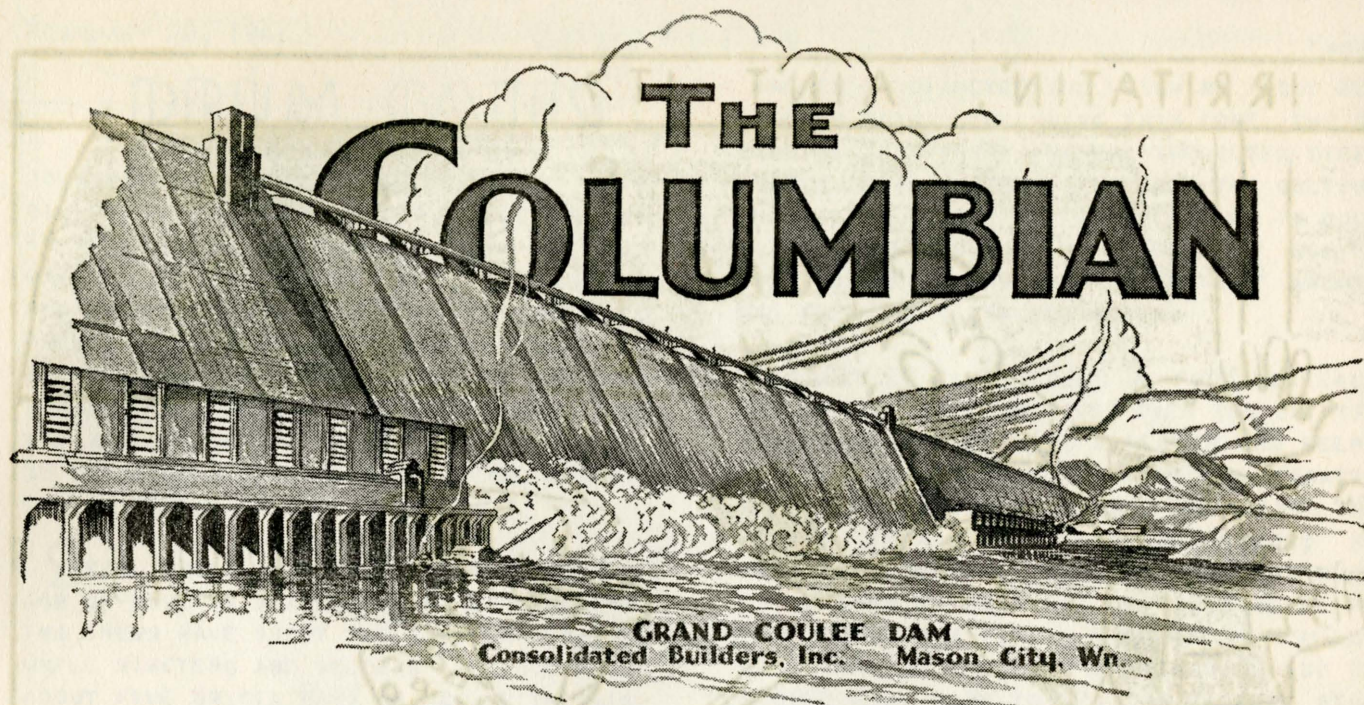
Follow this and additional works at: [http://dc.ewu.edu/mwak\\_columbian](http://dc.ewu.edu/mwak_columbian)

---

### Recommended Citation

Consolidated Builders, "Columbian, Vol. 7, No. 4" (1941). *Columbian (Grand Coulee Dam newsletter)*. 150.  
[http://dc.ewu.edu/mwak\\_columbian/150](http://dc.ewu.edu/mwak_columbian/150)

This Book is brought to you for free and open access by the University Archives & Special Collections at EWU Digital Commons. It has been accepted for inclusion in *Columbian (Grand Coulee Dam newsletter)* by an authorized administrator of EWU Digital Commons. For more information, please contact [jotto@ewu.edu](mailto:jotto@ewu.edu).



VOL. 7 No. 4

FEBRUARY 20, 1941

# DRUM GATES—ERECTION—RIVETING, WELDING; $\frac{1}{4}$ MILLION BOLTS, $\frac{1}{2}$ MILLION RIVETS, 9 MILES WELDING

THE SOUND OF THE RIVETER AND THE ARC FLARES OF THE WELDER HAVE LONG BEEN AN IMAGINATIVE FEATURE OF POETRY AND PROSE. BUT PERHAPS NOWHERE, FROM A LOCAL POINT OF VIEW, DO THEY SUDDENLY ASSUME A MORE IMPORTANT ROLE THAN NOW IN THE NATIONAL DEFENSE PROGRAM AND HERE AT GRAND COULEE DAM. IMAGINATIVELY AND ACTUALLY THE RIVETER AND THE WELDER, ALONG WITH OTHER MEMBERS OF THE IRON WORKING TRADES, MAY BE CALLED THE PRESENT SEASON'S NO. 1 EMPLOYEES HERE BECAUSE THEY ARE A CENTRALIZED GROUP WORKING ON THE SEASON'S NO. 1 JOB ON GRAND COULEE DAM PROPER. APPROXIMATELY 170 MEN WHO, OVER TWO SHIFTS DAILY, WORK ON THE INSIDE AND OUTSIDE OF THE LARGEST DRUM GATES EVER DESIGNED WILL LEAVE BEHIND THEM BUOYANT STRUCTURES TO REGULATE 2,400,000 ACRE-FEET OF WATER IN THE UPPER 28 FEET OF RESERVOIR BEHIND GRAND COULEE DAM.

IT IS A BIG JOB THESE ERECTORS OF 1,200,000-POUND GATES HAVE. IN ADDITION TO ASSEMBLING 5650 PIECES OF EXPOSED PARTS PER GATE, NEARLY 44,000 RIVETS, PRINCIPALLY STEEL, MUST BE DRIVEN ACCORDING TO EXACTING REQUIREMENTS, AND 4300 FEET OF WELDING MUST BE PERFORMED, MOST OF WHICH IS NOT SINGLE-PASS WELDING BUT USUALLY IS TRIPLE-PASS. IN ADDITION TO OTHER WORK, FROM 20,000

TO 25,000 BOLTS ARE USED PRELIMINARY TO RIVETING AND WELDING FOR EACH GATE AND THEN ARE REMOVED.

TOTALLED AND INTERPRETED OTHERWISE,  $4\frac{1}{5}$ -MILE OF WELDING PER GATE WILL BRING A TOTAL OF NINE MILES OF WELDING FOR THE 11 GATES, WHICH FALLS LITTLE SHORT IN LINEAL FIGURES FROM WESTERN PIPE & STEEL'S WORK ON PENSTOCKS AND PUMPING PLANT INTAKE TUBES. APPROXIMATELY  $\frac{1}{2}$  MILLION RIVETS WILL HAVE BEEN DRIVEN ON COMPLETION AND  $\frac{1}{4}$  MILLION BOLTS HAVE BEEN USED AND THEN REMOVED.

AND THERE ARE OTHER IMPORTANT DUTIES TO PERFORM FOR EACH GATE. GATE NO. 1, FIRST OF SIX GATES LOOMING UP ALONG THE SPILLWAY BRINK TO BE COMPLETELY RIVETED AND WELDED, AWAITS THIS WORK; THE WORK ITSELF AWAITS ONLY SUFFICIENTLY HIGH WEATHER TEMPERATURES.

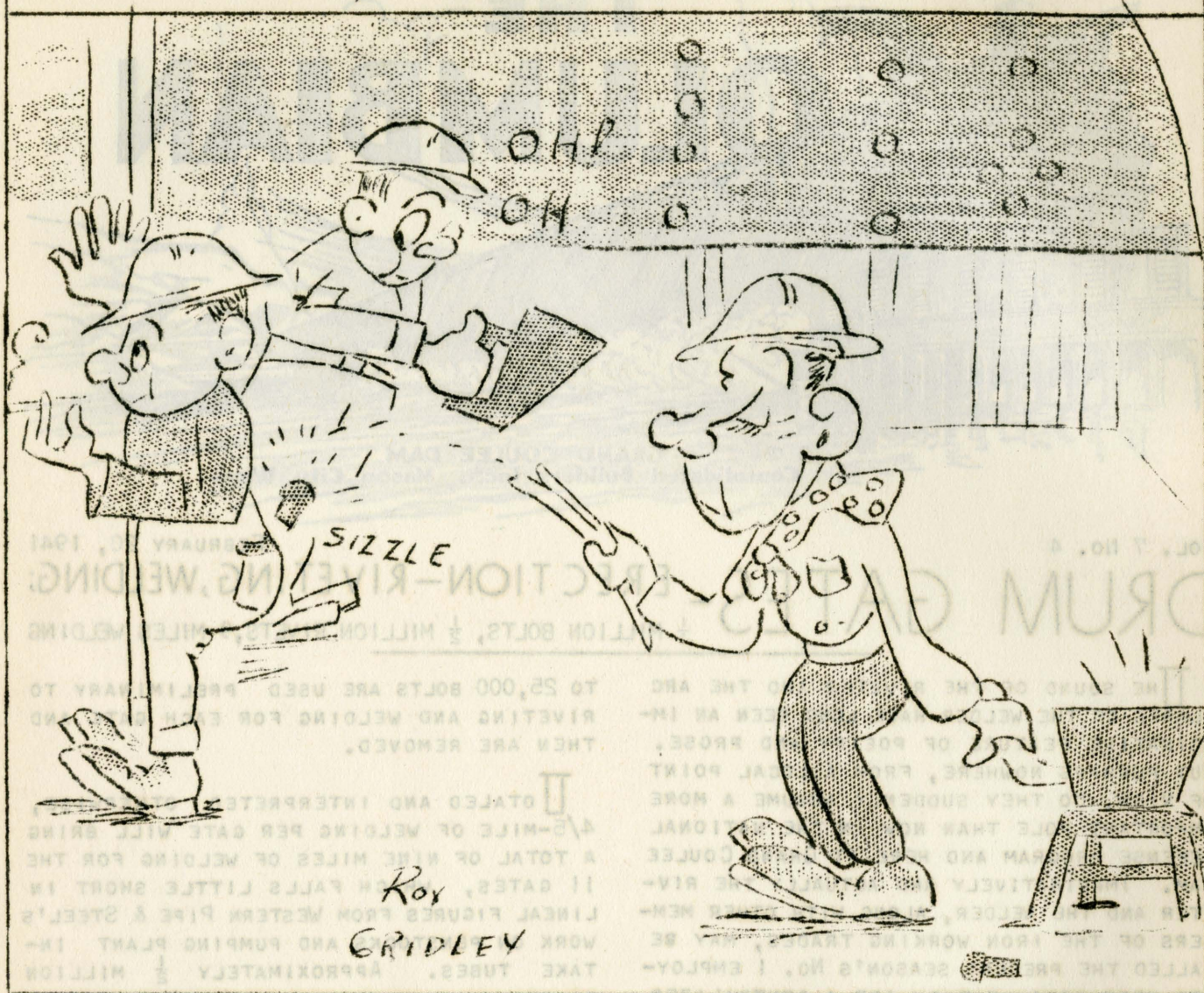
THE JOB IS DRUM GATE CLEANING AND PAINTING. GATES MUST BE SCOURED OF ALL RUST, SCALES AND OTHER FOREIGN SUBSTANCES. CLEANING PROBABLY WILL BE BY BLASTING, WHILE PAINTING MAY BE BRUSHED OR SPRAYED. PAINT IS TO BE A TAR COMPOUND TO BE PUT ON TO A DEPTH OF LESS THAN  $1/16$ -INCH. TWO OR THREE COATS WILL BE REQUIRED. THE

(CONTINUED ON PAGE 3)



SOMEONE WAS TO BLAME -- SOMEONE ALWAYS IS

# IRRITATIN', AIN'T IT?



Roy  
GIRDLEY

## AS GOES THE FOREMAN SO GOES HIS CREW

AS A FOREMAN IS, SO WILL HIS GANG BE. IF HE OBEYS RULES AND INSISTS THAT HIS MEN OBEY THEM, HIS GANG WILL HAVE FEW ACCIDENTS. BUT HE MUST INSIST UPON OBEDIENCE. SOME MEN OBJECT TO THE USE OF GOGGLES AND WILL TRY TO AVOID USING THEM EVEN ON DANGEROUS WORK. IF THE FOREMAN IS CARELESS, HE IS LIKELY TO HAVE TO REPORT THAT A MAN HAD HIS EYE PUT OUT BY A CHIP WHILE AT WORK WITHOUT GOGGLES. THE FOREMAN WILL THEN HAVE TO EXPLAIN HOW THE MAN CAME TO BE DOING THIS WORK WITHOUT PROTECTING HIS EYES WITH GOGGLES. ALSO, HE WILL SUFFER FROM THE THOUGHT THAT THROUGH HIS CARELESSNESS OR WEAKNESS A MAN HAS LOST AN EYE... IT IS A TRUE SAYING, "BETTER BE SAFE THAN SORRY."

THE ONLY SURE WAY TO GET RID OF AN ENEMY IS TO MAKE A FRIEND OF HIM.

THE EAST UNIT OF THE MIXING PLANT JUST ISN'T HERE ANY MORE.

THE EAST HALF IS ON ITS WAY TO LONG BEACH, CALIF., TO GUY F. ATKINSON COMPANY.

DURING 1940 \$5,414,037 WERE PAID IN WAGES AT THE DAM SITE, BUREAU OF RECLAMATION RECORDS SHOW. THE AVERAGE HOURLY WAGE WAS OVER \$1.13 FOR 4,784,197 MAN-HOURS. THE FIGURES ARE FOR THE CONTRACTORS AND THE BUREAU OF RECLAMATION.

INCLUDING AFFILIATED PROJECTS, WAGES WERE \$6,172,995.

BIDS WILL BE RECEIVED UNTIL FEB. 26 AT THE DENVER OFFICE OF THE BUREAU OF RECLAMATION FOR FURNISHING AND DELIVERING FABRICATED STEEL PIPE, FITTINGS, VALVES AND COCKS FOR THE COULEE DAM POWER PLANT.

MIDDLE AGE-A FEW YEARS OLDER THAN YOU ARE.

# DRUM GATES

(CONTINUED FROM PAGE 1)

DOWNSTREAM SIDE OF EACH GATE WILL HAVE OIL PAINT INSTEAD OF TAR, HOWEVER, OVER THE ENTIRE SURFACE OF EACH GATE, BOTH INSIDE AND OUT, PAINTING AND CLEANING WILL BE CARRIED ON TO PREVENT ANY DANGER OF WEATHERING TO THE PLATES. THIS WORK AWAITS THE ASSURANCE OF PROLONGED TEMPERATURES FOR THE AIR AND METAL SURFACES OF AT LEAST 50 DEGREES; NEITHER CAN THE METAL SURFACES OR THE WEATHER BE DAMP.

STEEL ERECTION OF GATE MEMBERS IS A JOB OF FIVE OR SIX ONE-SHIFT DAYS. BOLT-ING CREWS HAVE ABOUT TWO DAYS ON A GATE, WHILE RIVETERS AND WELDERS ARE OCCUPIED ABOUT FIVE OR SIX DAYS ON ONE OF THE BIG DRUM STRUCTURES. THIS REQUIRES THAT THE WORK PROCEED CONTINUOUSLY WITHOUT INTERRUPTION AND WITHOUT UNUSUAL DIFFICULTIES. MANY SPILLWAY EMPLOYEES, PRELIMINARILY TRAINED HERE, ARE PROFITING RAPIDLY FROM ACTUAL EXPERIENCE.

FOLLOWING WORK THAT HAD BEEN COMPLETED LAST FALL, DRUM GATE HINGE ANCHORAGES THIS YEAR WERE GROUTED IN PLACE AND HINGES WERE ALIGNED. THIS WAS A CAREFUL AND EXACTING JOB, CHECKED BY PIANO WIRE AND MICROMETERS AND BRASS POINTS SET AT EACH END OF A GATE BY BUREAU OF RECLAMATION ENGINEERS. THE 40 HINGES PER GATE ARE SET WITHIN 4/1000-INCH ACCURACY. THEN STEEL ERECTION CREWS PLACE THE BOTTOM OR HINGE GIRDERS AND SET THE PINS - 20 INCHES LONG, SIX

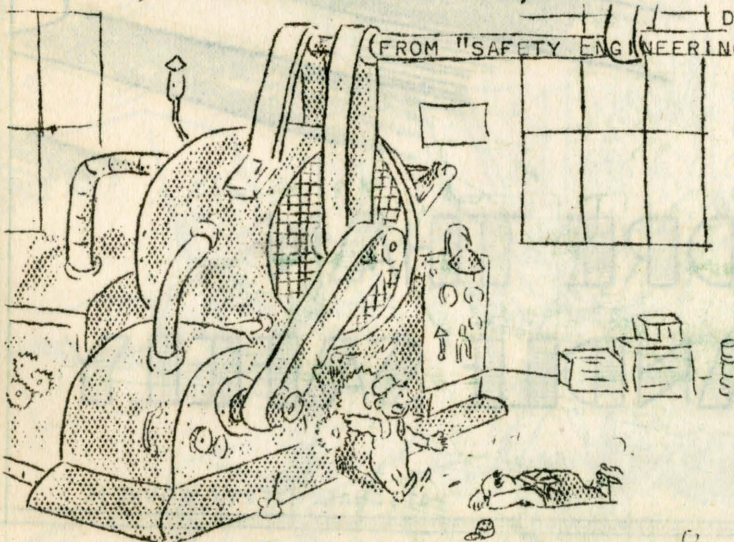
INCHES IN DIAMETER AND WEIGHING ABOUT 200 POUNDS EACH. FOLLOWING THIS COME THE 40 RIBS OR TRANSVERSE FRAMES, THE OUTER STEEL PLATES (SKIN PLATES), AND THEN THE BOLTING IN GENERAL, EVERY OTHER RIVET HOLE IS BOLTED IN TWO STEPS. SKIN PLATES ARE BOLTED DOWN TO THE FRAMES WITH AN IMPACT WRENCH AND THEN ARE TIGHTENED AGAIN.

ABOUT 20 RIVET CREWS OF FOUR MEN EACH ARE AT WORK ON DRUM GATES OVER TWO SHIFTS. THE CREW CONTAINS (1) A HEATER WHO KEEPS 15 OR 16 RIVETS HEATING IN AN AIR-OPERATED COAL- OR COKE-FUELED FORGE. HE BRINGS THE RIVETS TO A LIGHT CHERRY-RED COLOR; HE DOES NOT OVERHEAT THEM, HE DARE NOT BURN THEM. THEN, THROUGH USE OF TONGS, HE FLIPS RIVETS ONE AT A TIME A DISTANCE OF USUALLY LESS THAN 30 FEET BUT ON OCCASION UP TO 100 FEET OR MORE TO (2) THE PASSER STATIONED AT THE RIVET HOLE. THE HOT RIVET IS PLACED INTO THE HOLE AND (3) THE BUCKER-UP MAN USES A PNEUMATIC DOLLY TO PUSH THE RED-HOT RIVET OUT TO THE (4) RIVETER WHO IS STATIONED ON THE OPPOSITE SIDE, USUALLY THE OUTSIDE, OF THE GATE. ONE OF THESE CREWS, ON AN AVERAGE, DRIVES ABOUT 600 RIVETS PER SHIFT.

WHEN RIVETERS LEAVE A GATE FOR THE LAST TIME, EVERY HOLE CONTAINS A RIVET, NOT A BOLT. THE GATE ITSELF DOES NOT CONTAIN A SINGLE BOLT. OF 28 DIFFERENT SIZE RIVETS MEN WHO RECEIVED HERE TO BE USED FOR THE GATES, DO THIS ON 42 PER CENT (OVER 200,000) ARE 2 3/4 THE JOB CANNOT AND 2 5/8 INCHES LONG AND 7/8-INCH PREVENT AN ACCIDENT IN DIAMETER. A FEW ARE 7 INCHES LONG. ALL BUT 8 PER CENT ARE 7/8-INCH IN DIAMETER. RECORDS SHOW THAT THE ACTUAL NUMBER OF STEEL RIVETS TO BE DRIVEN INTO THE 11 GATES ARE 476,157 OR 43,287 PER GATE. IN ADDITION 6996 OR 636 PER GATE OF COPPER RIVETS WITH THEIR WASHERS WILL BE USED.

UNLIKE RIVETING, WHICH IS A STRENGTH GIVING JOB FOR THE DRUM GATES, WELDING IS TO MAKE THE GATES WATER TIGHT. AT JUNCTION POINTS OF GATE MEMBERS, FOR BOTH BULKHEADS AND SIDES OF GATES, WELD SEAMS MUST GO. THE SIMPLEST WELD LINES ARE THOSE WHICH JOIN THE 10-FOOT- WIDE SKIN PLATES, WHICH FORM THE THREE SIDES OF A GATE. BUT AT EVERY POINT OR LINE WHERE EXISTS THE REMOTEST POSSIBILITY OF DAMPNESSE ENTERING THROUGH OR BETWEEN ANY KIND OF PLATES, WELDING RODS

(CONTINUED ON PAGE 5)



BUT CLANCY, I DIDN'T MEAN TO SPOIL YOUR SAFETY RECORD.

MANIC  
TOWN SEND



**NEVER**  
HANDLE MORE THAN  
YOU CAN HANDLE SAFELY

NATIONAL SAFETY COUNCIL

# DRUM GATES

(CONTINUED FROM PAGE 3)

WILL BE USED. THE PURPOSE IS TO RISK NO RUSTING OR WEAKENING OF ANY GATE PART. THE JUNCTION LINE BETWEEN RIVETED PLATES, FOR EXAMPLE, WOULD BE WEAKENED IF RIVETS WERE TO RUST. WHERE THREE PASSES ARE USED IN WELDING, THE FIRST IS PLACED AND THEN PEENED. PEENING IS USE OF A PNEUMATIC TOOL CONTAINING A POINT SOMEWHAT SIMILAR TO A VERY BLUNT CHISEL. FOLLOWING PEENING THE WELD IS BRUSHED WITH A WIRE BRUSH. EVERY WELD LAYER OR PASS GETS THIS PROCEDURE. THIS SHOWS ADDITIONAL PRECAUTIONS TO MINIMIZE STRESSES DUE TO EXPANSION OR CONTRACTION AND DISTORTION CAUSED BY HEAT. COMPLETED WELDS WILL BE SMOOTH, HAVE UNIFORM SECTIONS, SHOW FEATHER EDGES WITHOUT OVERLAPS AND BE FREE FROM POROSITY AND CLINKERS.

THE FINAL RESULTS OF WELDING AND RIVETING CAN BE SEEN IN GATE 1. HERE ON THE DOWNSTREAM SIDE OF THE GATE WHERE RIVETS HAVE BEEN COUNTERSUNK, CHIPPED AND GROUND FLUSH -- AS THEY WILL BE FOR ALL THE GATES -- IT IS DIFFICULT TO DISCOVER THAT THE DOWNSTREAM STEEL WALL HAS EVER BEEN ANYTHING OTHER THAN THE ONE BIG SINGLE UNIT. WELD LINES AND RIVET HEADS ARE NO LONGER DISTINGUISHABLE. SUCH WILL CONTINUE TO BE THE CASE WHEN THE GATES ARE CLEANED AND PAINTED.

WHEN CLEANING AND PAINTING IS COMPLETED FOR A GATE, 10 30-TON JACKS WILL LOWER A



GATE SUFFICIENTLY FOR THE PLACEMENT OF SEAT SEALS AND SIDE SEALS, THE GATE WILL BE TESTED OUT AND NECESSARY ADJUSTMENTS WILL BE MADE AND ELECTRICIANS WILL COMPLETE THEIR HEATING PLATE INSTALLATIONS. WHEN THE GATE IS IN OPERATION THE FOUR MANHOLES -- TWO IN THE BOTTOM SIDE AND TWO IN THE TOP OF THE GATE -- WILL BE CLOSED OFF. WORKMEN WILL NOT HAVE THE REASON THEN FOR PASSING INTO AND OUT OF THEM TO CARRY ON BOLTING, RIVETING, WELDING, CLEANING AND PAINTING.

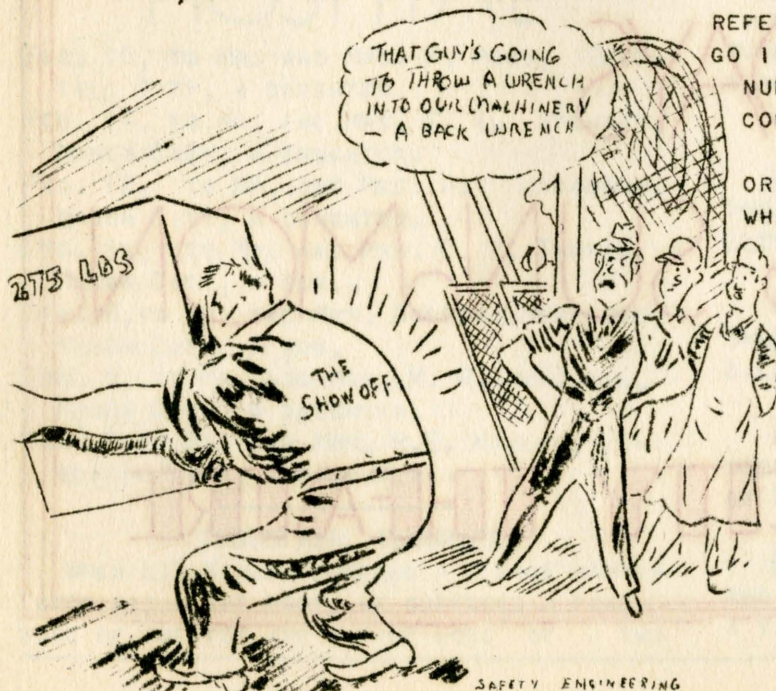
WE ARE PARTICULARLY GRATEFUL TO J. F. ANDERSON, REINFORCEMENT STEEL AND DRUM GATE SUPERINTENDENT, FOR HIS COOPERATION IN EXPLAINING DRUM GATE WORK.

RIVET FIGURES IN THE PRECEDING ACCOUNT REFER ONLY TO THOSE WHICH ARE ACTUALLY TO GO INTO THE GATES AND DO NOT INCLUDE THE NUMBER OF RIVETS RECEIVED, A FIGURE OF COURSE LARGER.

STEEL RIVETS RECEIVED TOTAL 491,558 OR 15,400 MORE THAN THOSE TO BE USED, WHILE COPPER RIVETS RECEIVED TOTAL 7700, OR 704 MORE THAN THOSE TO BE USED.

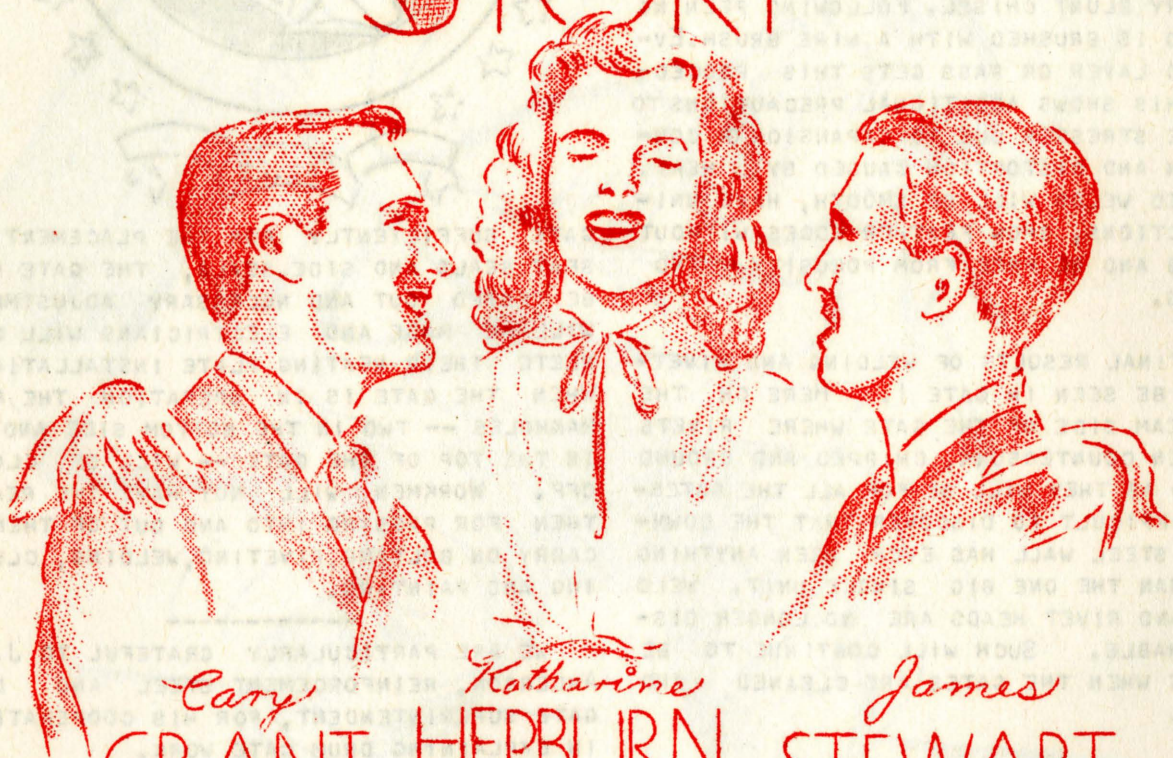
IN MEMPHIS, TENN., A BIRD IGNITED A MATCH IN ITS NEST ON A CHURCH STEEPLE. THE STEEPLE CAUGHT ON FIRE, BUT THE FLAMES MELTED SOME ICICLES ON THE STEEPLE AND THE WATER EXTINGUISHED THE FIRE.

A THOROUGHbred IS A MAN OR WOMAN SO SERENELY SURE OF HIS OR HER PLACE IN THE WORLD THAT HIGH-HATTING IS UNNECESSARY.



“

# PHILADELPHIA STORY ”



*Cary*  
GRANT *Katharine*  
HEPBURN *James*  
STEWART

4 DAYS

FRI. SAT. SUN. MON.

MASON CITY THEATRE

## WALTER WALLACE

CBI WELDER, 1939.

LAST HEARD FROM BY RELATIVES IN NOVEMBER, 1938.

ANY INFORMATION LEADING TO A TRACE OF HIM AFTER HE LEFT MASON CITY WILL BE DEEPLY APPRECIATED BY HIS RELATIVES.

IF YOU KNOW ANYTHING WHICH MIGHT BE OF HELP IN LOCATING HIM, PLEASE NOTIFY HIS COUSIN, MRS. MARIE FLINN AT THE DALLAS, ORE., OR LEAVE WORD AT THE CBI EMPLOYMENT OFFICE.

SAFETY HONOR ROLL DEPARTMENTS FOR JANUARY WERE (1) ELECTRICAL, (2) PERMANENT ELECTRICAL CONDUITS AND (3) MATERIAL & LABOR.

OF 103 TOTAL ACCIDENTS DURING THE MONTH, 57 WERE FOREIGN BODIES IN THE EYES.

NO ACCIDENTS WERE CHALKED UP AGAINST THE HONOR ROLL DEPARTMENTS, NOR AGAINST RAILROAD OPERATIONS OR ELECTRIC CITY YARD OPERATIONS. TOTAL MAN-HOURS FOR THE MONTH WERE 116,656. EIGHT LOST TIME ACCIDENTS TOTALED 67 DAYS LOST TIME.

THE LESS YOU HAVE TO DO WITH SOME PEOPLE THE LESS YOU ARE WORSE OFF.

NET PROCEEDS OF THE TWO DANCES HELD IN THE AREA TO FIGHT INFANTILE PARALYSIS REACHED \$300.

PUPPY LOVE IS THE BEGINNING OF A DOG'S LIFE.

"DIAMONDS WILL SPARKLE"  
AT MEETING TONIGHT

OF UNUSUAL INTEREST TO THE GENERAL PUBLIC AND GEOLOGISTS WILL BE THE MEETING TONIGHT (THURSDAY) AT 7:30 OF THE GRAND COULEE DAM GEOLOGY CLUB.

CHARLES SELLERS, LYNCH BROTHERS FOREMAN, WILL DISCUSS THE HISTORY OF DIAMOND DRILLING AND ITS PLACE IN BUILDING GRAND COULEE DAM.

C. E. BENJAMIN, USBR ENGINEER, WILL TELL OF COMMERCIAL STONES, THEIR HISTORY, SOURCE AND USES.

THESE MEETINGS ARE OPEN TO THE PUBLIC AND ARE HELD IN THE SCHOOL HOUSE AT COULEE DAM.

THE BUREAU OF RECLAMATION WILL OPEN BIDS MARCH 5 AT DENVER FOR CONTROL EQUIPMENT FOR THE 11 COULEE DAM DRUM GATES.

THE EQUIPMENT WILL INCLUDE 11 AUTOMATIC FLOATS, 11 CONTROL SHAFT OPERATING MECHANISMS AND 11 POSITION INDICATING RECORDERS.

PAYROLL FIGURES LAST WEEK, ACCORDING TO RECORDS OF THE BUREAU OF RECLAMATION, TOTALED 2192 FOR THE DAM SITE.

CBI EMPLOYED 1188, THE USBR 983 AND LYNCH BROTHERS 21.

SELF-MADE MEN USUALLY NEED A LOT OF ALTERATIONS.

WEEKS.

A LOG ROLLED OUT OF A TRASH FIRE WHERE HE WAS WORKING AND H. B. DUFFY SUSTAINED A HEEL CONTUSION AND LOSS OF 10 DAYS.

## NON INDUSTRIAL &amp; FAMILY PLAN

AFTER A FEW DAYS OF HOSPITALIZATION FOR MEDICAL TREATMENT, ERNIE MYERS, MASON CITY, IS NOT HOME.

ELLEN ROSE SYMMONDS, DAUGHTER OF BERT SYMMONDS, GRAND COULEE, IS NOW UNDER MEDICAL TREATMENT AT THE HOSPITAL.

A MAJOR SURGERY WITH HIGHLY BENEFICIAL RESULTS WAS PERFORMED ON MRS. C. A. WYER OF MASON CITY ON VALENTINE'S DAY.

MISS KATHERINE JOHNSON, MAID TO MR. AND MRS. E. F. KAISER, HAS PROFITED FROM A VALENTINE DAY TONSILLECTOMY.

MASON

## HOSPITAL

CITY

FEB. 15, TO MR. AND MRS. F. PUGH, ELECTRIC CITY, A DAUGHTER.

FEB. 14, TO MR. AND MRS. F. A. STEWART, MASON CITY, A DAUGHTER.

FEB. 12, TO MR. AND MRS. ROY JACOBSON, MASON CITY, A DAUGHTER.

FEB. 11, TO MR. AND MRS. C. B. THOMAS, MASON CITY, A SON.

FEB. 9, TO MR. AND MRS. GORDON LOCHRIDGE, MASON CITY, A SON.

FEB. 9, TO MR. AND MRS. M. R. WARDALL, MASON CITY, A DAUGHTER.

FEB. 7, TO MR. AND MRS. R. E. KAYLER, ELECTRIC CITY, A DAUGHTER.

## INDUSTRIAL INJURIES

WHEN L. Z. KINZER DROPPED A SLEDGE HAMMER UPON HIS RIGHT FOOT, HE SUFFERED A FRACTURE OF THE TOE AND A TIME LOSS OF TWO

WELDERS NOW HAVE A NICE LITTLE JOB.

WITH GROUTING COMPLETED IN THE SPILLWAY, WELDERS WILL PROCEED DOWN INTO THE 20 102-INCH OUTLET TUBES AT THE UPPER ROW OR 1137 ELEVATION TO WELD THE SEAMS IN THE INTERIOR OF CONDUITS. SLIP JOINTS HAD BEEN LEFT IN EACH TUBE TO TAKE CARE OF ANY CONTRACTION AS THE RESULT OF TEMPERATURE CHANGE OF CONCRETE DURING COOLING.

ALTHOUGH BUT 28 YARDS OF CONCRETE WERE PLACED, CONCRETING RESUMED ON GRAND COULEE DAM FEB. 11 IN THE GATE TRACK SUPPORTS OF THE OUTLET STRUCTURES. AND ON THE FOLLOWING DAY 20 YARDS OF CONCRETE WENT INTO SECOND STAGE WORK IN THE POWER HOUSE. CONCRETE IS BEING PLACED TO BACKFILL DRAFT TUBE LINER IN UNIT L-2. FOR THE MONTH TO DATE, 340 YARDS HAS BEEN PLACED.

THE FIRST OF THE MAIN UNIT SCROLL CASES IS READY TO PASS THE TEST, AS ALL SCROLL CASES HERE WILL BE. A SPIRAL RING CLOSES OFF ONE END, A BULKHEAD CLOSES THE PENSTOCK ENTRANCE TO THE CASE, AND THE CASE IS SUBJECTED TO WATER PRESSURES IN EXCESS OF THAT WHICH IT WILL RECEIVE IN REGULAR OPERATION.

THEN THERE'S THE SALES GIRL WHO ALLOWED HERSELF TO BE TAKEN OUT BY A YOUNG MAN, AND WHEN HE BROUGHT HER HOME AND KISSED HER GOOD-NIGHT SHE SAID, "WILL THAT BE ALL, SIR?"

FOLLOWING COMPLETION OF GRIT - BLAST CLEANING OF THE WEST PENSTOCKS, CBI EMPLOYEES INTRODUCED A BLOWER TO EAST PENSTOCKS WITHIN THE PAST WEEK. GRAINS OF CHILLED STEEL ARE CUTTING THE WALLS CLEAN FOR 4-COAT PAINTING OF THE PENSTOCK LINER WITH TAR-COMPOUND PAINT.

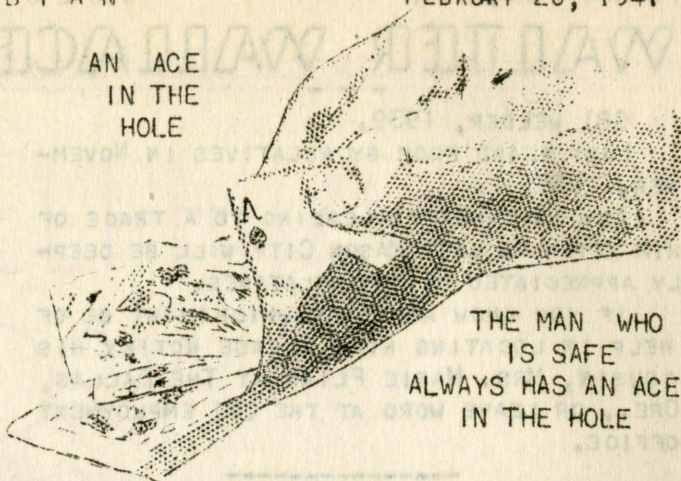
A REAL TRUCKLOAD OF RIPRAP CAME OUT OF THE ROCK QUARRY IN ONE PIECE LAST MONTH. THE SINGLE PIECE OF GRANITE TOTALED 8.9 YARDS.

NEARLY 43,000 YARDS HAVE BEEN TRUCKED OUT FROM THE QUARRY. RIPRAP PLACING FIGURES FROM THE QUARRY ARE 21,287 YARDS.

JACK WALSH IS NOW A SUPERINTENDENT ON A WALSH CONSTRUCTION DEFENSE JOB AT TRINIDAD, IN THE WEST INDIES.

T. F. STANLEY, MR. AND MRS. ROY KENDLER RUSS KELLY AND CLAIR SPENCER ARE AMONG RECENT TRANSFERS TO THE COAST.

AN ACE  
IN THE  
HOLE



THE MAN WHO  
IS SAFE  
ALWAYS HAS AN ACE  
IN THE HOLE

CIVIL SERVICE EXAMINATIONS (URGENTLY NEEDED FOR NATIONAL DEFENSE)

#### AERONAUTICAL

AERONAUTICAL INSPECTORS; INSTRUCTOR, AIR CORPS TECHNICAL SCHOOL; JUNIOR AIRWAY TRAFFIC CONTROLLER.

#### DRAFTING

ENGINEERING DRAFTSMEN.

#### ORDNANCE AND EXPLOSIVES

ENGINEERING AID (AERONAUTICAL); AERONAUTICAL ENGINEER; CHEMICAL ENGINEER; MECHANICAL ENGINEER (INDUSTRIAL PRODUCTION); ENGINEER; INSPECTOR, SIGNAL CORPS EQUIPMENT; INSPECTOR, POWDER AND EXPLOSIVES; JUNIOR ENGINEER; CIVIL ENGINEER; INSPECTOR, ORDNANCE MATERIAL; METALLURGICAL ENGINEER.

#### MARINE, ALSO NAVAL ARCHITECTURE

INSPECTOR, SHIP CONSTRUCTION; NAVAL ARCHITECT; MARINE ENGINEER; MARINE SURVEYOR.

#### RADIO

RADIO MONITORING OFFICER; JUNIOR COMMUNICATIONS OFFICER.

#### SCIENTIFIC

CHEMIST (EXPLOSIVES); PHARMACOLOGIST; CHEMICAL ANALYST.

#### TRADES

SHIPFITTER; LOFTSMAN; LENS GRINDER; INSTRUMENTMAKER; TOOLMAKER.

#### MISCELLANEOUS

INSPECTORS OF HATS, HOSIERY, CLOTHING, ETC.

OTHER EXAMINATIONS NOT SO URGENT INCLUDE BRANCHES OF LITHOGRAPHY, PHYSIOTHERAPY, DIETETICS, TABULATING EQUIPMENT OPERATORS, MARKETING SPECIALISTS; ACCOUNTANTS; ARTIST-DESIGNER; HOME ECONOMISTS; VETERINARIAN; STENOGRAPHIC; PRINTING OFFICE APPRENTICE; ENGINEMAN; NAVAL CIVILIAN POLICE INSPECTOR.

OTHER INFORMATION AT YOUR POST OFFICE OR SEE M. M. SMITH, USBR ADMINISTRATION OFFICE.

# BEAUTIES BLOW BEARDS AT DYNAMOS

BEARDED WIZARDS OF THE MAPLE COURT, THE HOUSE OF DAVID, TRAVELING BASKETBALL TEAM, WILL TRY TO BEARD THE DYNAMOS IN THEIR DEN NEXT TUESDAY, FEB. 25, CBI GYM. THE DAVIDITES WILL BE THE THIRD OF NATIONALLY-KNOWN TRAVELING TEAMS TO VISIT THE DAM THIS SEASON.

THOUGH SUPERLATIVES ARE EASY TO USE,

THE LARGEST ATTENDANCE AT BASKETBALL IN THE COULEE DAM AREA SAW THE HARLEM GLOBE TROTTERS RECENTLY. MORE THAN 700 PAID ADMISSIONS LEFT NOT EVEN STANDING ROOM AVAILABLE. THE STANDS AND STAGE WERE PACKED AND SEATS COMPLETELY ENCIRCLED THE FLOOR WITHOUT A BREAK.

## TOURNAMENTS ON TAP FOR LOCAL QUINTETS

TOURNAMENTS -- THAT'S THE BIG WORD ON THE BASKETBALL FRONT THESE DAYS.

TOMORROW (FRIDAY) THE COULEE DAM DYNAMOS WILL HEAD FOR COEUR D'ALENE AS ONE OF EIGHT MEN'S TEAMS IN THE INLAND EMPIRE AAU TOURNAMENT -- IF TODAY THEY DEFINITELY CONFIRM THEIR TENTATIVE ACCEPTANCE TO ENTER. THEY ARE BOOKED TO MEET PINE CITY, WINNERS OF THE SPOKANE COMMUNITY LEAGUE AT 4 P.M.

TODAY GRAND COULEE HIGH SCHOOL MEETS E-PHRATA IN THE OPENING DAY OF THE GRANT COUNTY TOURNAMENT. IF THEY GET BY THE OPENER, THEY PLAY AGAIN FRIDAY NIGHT, OTHERWISE FRIDAY AFTERNOON.

THE WEEK FOLLOWING, MASON CITY HIGH WILL HEAD FOR THE OKANOGAN COUNTRY TO ENTER THE OKANOGAN COUNTY TOURNEY FEB. 28 AND MARCH 1. THIS FRIDAY THEY MEET OMAK AWAY FROM HOME. THEY BEAT OMAK HERE NOT LONG AGO IN AN OVER-TIME GAME.

ALTHOUGH THE WILBUR RAMBLERS TOOK THE DECIDING GAME OF A THREE-GAME SERIES TO SEE WHO WOULD REPRESENT THE AREA IN THE COEUR D'ALENE TOURNEY, SEVERAL WILBURITES WERE NOT IN FAVOR OF GOING. THE DYNAMOS WERE INVITED.

IF THE DYNAMOS HEAD FOR COEUR D'ALENE FRIDAY, THEIR ROSTER LIKELY WILL INCLUDE KIDDER, DICKSON, ROSS, NEFF, HEATON, MARION AND ONE OR TWO OTHERS, AND EITHER MARK ANTONCICH OR RAY MOLITOR OF WILBUR. THE CALL LIKELY WILL GO TO MOLITOR, WHO HAS

PLAYED SEVERAL GAMES WITH THE LOCALS HERE THIS YEAR AND WHO WON A BERTH ON THE ALL-STATE AAU FIRST STRING LAST YEAR.

IF THE DYNAMOS GO AND SUCCEED IN WINNING THEIR OPENER, THEY LIKELY WILL HAVE RAY CROSS, GRAND COULEE HIGH SCHOOL MENTOR, AND SIEGEL, COULEE CITY COACH AND FORMER VARSITY LETTERMAN AT GONZAGA UNIVERSITY, AVAILABLE IF THEIR HIGH SCHOOLS LOSE OUT IN COUNTY TOURNAMENTS. SIEGEL'S 15 POINTS WERE HIGH AS HE LED THE WILBUR ATTACK IN THE LAST PLAY-OFF GAME AGAINST THE DYNAMOS.

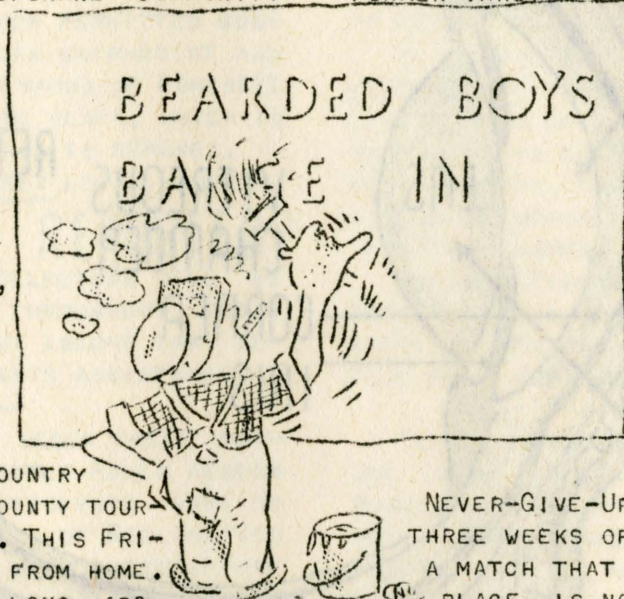
THE GIRL WHO REDUCES IS SIMPLY GOING OUT OF HER WEIGH TO PLEASE SOME MAN.

NEVER-GIVE-UP BILL GEYER WHO, AFTER THREE WEEKS OF TRYING, FINALLY STRUCK A MATCH THAT WOULD LIGHT HIS FIRE PLACE, IS NOW GOOD FOR A TOUCH OF 5 DOLLARS. HE WAS AWARDED 10 DOLLARS ONLY LAST NIGHT.

C. B. FUNK, CHIEF CLERK FOR THE BUREAU OF RECLAMATION HERE, BECAME A CIGAR DISTRIBUTOR HERE. HE AND AGNES ESTBY WERE MARRIED SATURDAY AT COEUR D'ALENE.

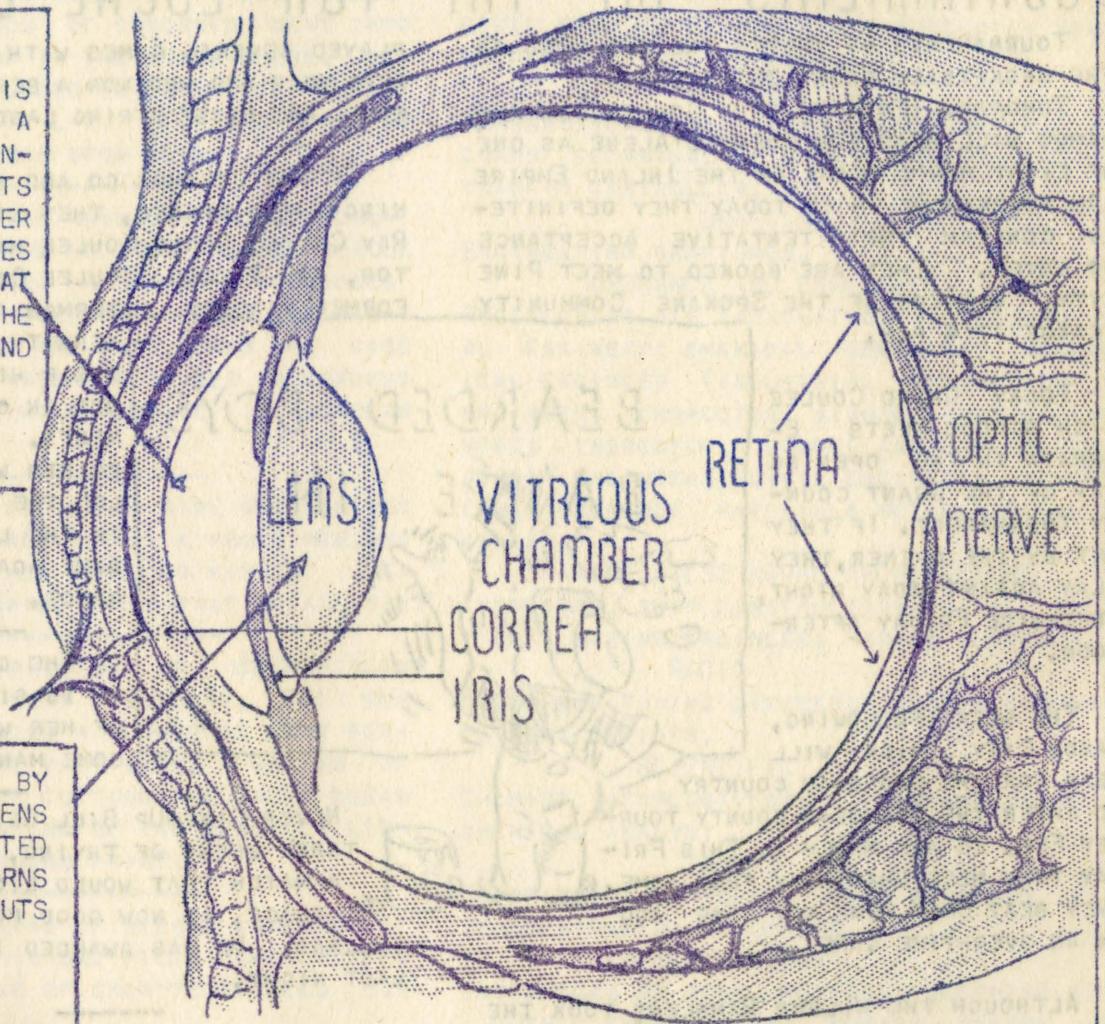
ORVIN, 5, AND ELTON, 3, SONS OF MR. AND MRS. R. J. KESTER, SUFFOCATED MONDAY AT ELECTRIC CITY, WHEN EARTH CAVED IN UPON THEM IN A BASEMENT.

ROY JACOBSON, NOW A POPPA, SWEARS IT'S GONNA BE WHISKEY NEXT TIME.



# THE HUMAN EYE

WHEN THIS IS STRUCK BY A CHIP THE INJURY RESULTS IN AN ULCER WHICH LEAVES A SCAR THAT SHUTS OUT THE LIGHT AND CAUSES BLINDNESS



WHEN STRUCK BY A CHIP THE LENS IS SO AFFECTED THAT IT TURNS WHITE AND SHUTS OUT THE LIGHT

## GOGGLES

### WILL SAVE YOUR EYES

NATIONAL SAFETY COUNCIL

# CONCRETE COOLING ENDS AT COULEE DAM

A JOB WHICH SAW ITS BEGINNING FIVE YEARS AGO IS ENDED NOW WITH COMPLETION OF CONCRETE COOLING OF GRAND COULEE DAM. THE TWO COOLING BARGES ARE NOW STANDING BY. PIPE LINES AND THE COOLING TOWER ARE BEING DISMANTLED.

WATER HAD BEEN FED THROUGH NEARLY 2000 MILES OF PIPE EMBEDDED IN CONCRETE TO BRING CONCRETE TEMPERATURES DOWN FROM 130-140 DEGREES TO THE REQUIRED 45 DEGREES. THROUGH ORDINARY RADIATION THE MASS OF CONCRETE WOULD NOT HAVE COOLED FOR AT LEAST 100, PERHAPS EVEN SEVERAL HUNDRED YEARS, TECHNICIANS CALCULATE. COOLING PIPE USE HAS BEEN ABLE TO DO THE FEAT IN FROM THREE TO FOUR MONTHS FOR ANY GIVEN ZONE OF CONCRETE. WATER HAD BEEN SUPPLIED BY TWO BARGES WITH A PUMPING CAPACITY OF 3500 AND 5500 GALLONS PER MINUTE.

ONE VERY, VERY SLIGHT EXCEPTION FACES THE STATEMENT THAT COOLING IS 100 PER CENT COMPLETE. THIS CONCERNS A CONCRETE BLOCKOUT IN BLOCK 7 WHICH PERMITTED CONSTRUCTION OF THE WEST CAR SKIP-HOIST AND INVOLVES ONLY ABOUT 550 YARDS OF CONCRETE FOR HALF THE WIDTH OF THE BLOCK, WHICH IS TO BE PLACED WHEN THE SKIP IS REMOVED. COOLING HERE CAN BE PURELY LOCAL, HOWEVER.

## INCOME TAX REPORTED?

DEPUTY INCOME TAX COLLECTORS WILL BE IN THE CBI MAIN OFFICE THROUGHOUT TODAY TO ASSIST IN FILLING OUT INCOME TAX RETURNS FOR ANYONE WHO WANTS ASSISTANCE.

NORRIS BROTHERS HAVE BEGUN THEIR CONTRACT UPRIVER IN THE KETTLE FALLS REGION BY ATTENTION TO SUPERSTRUCTURE WORK ON THREE BRIDGES, THE BUREAU OF RECLAMATION REPORTS. THE BRIDGES, WITH SUBSTRUCTURE COMPLETE, ARE TWO RAILROAD BRIDGES ACROSS THE KETTLE RIVER AND ONE COUNTY BRIDGE.

TWO OF GRAND COULEE DAM'S 36,000 KV-A TRANSFORMERS FOR THE FIRST OF THE MAIN UNITS ARE BEING HOOKED UP TO A LIGHTNING ARRESTER ON THE TRANSFORMER DECK BETWEEN THE LEFT POWER HOUSE AND THE DAM. THE THIRD AND LAST OF THE TRANSFORMERS FOR THE UNIT IS BEING ASSEMBLED IN THE POWER HOUSE.

EACH TRANSFORMER, READY FOR USE, WEIGHS 250,000 POUNDS.

SOME PEOPLE DRIVE AS THOUGH THEY WERE LATE FOR THEIR ACCIDENT.

CBI MESS HALL EVENING  
MEAL 4:45 TO 7:00, FORMERLY 5:00 TO 6:30.

## SLIDE EXCAVATION MOVES RAPIDLY

EXCAVATION OF THE WEST HIGHWAY SLIDE AREA IS ROUGHLY 60 PER CENT COMPLETED, IN TERMS OF COMMON EXCAVATION YARDAGE. AS OF FEB. 18, 702,000 YARDS HAD BEEN REMOVED FOR A JOB WHICH BEGAN DEC. 6. EXCAVATION HAS BEEN COMPLETED FOR AN ELEVATION CHANGE OF 250 FEET DOWN THE SLOPE. PROBABLY SOMETHING IN THE NEIGHBORHOOD OF 200,000 YARDS REMAIN BETWEEN THE PRESENT LEVEL OF 1250 AND THE HIGHWAY.

PLANS CALL FOR EXCAVATION TO THE HIGHWAY LEVEL, RELOCATION OF TRAFFIC, CONTINUED EXCAVATION, AND DYNAMITING NECESSARY TO PERMANENT LOCATING OF THE HIGHWAY.

AN AVERAGE OF 10 TRUCKS ARE MAKING OVER 1000 ROUND TRIPS DAILY WHILE AVERAGING 12,000 YARDS OVER THREE SHIFTS. A 4-YARD SHOVEL IS IN CONSTANT USE, WITH A SECOND AS A STAND-BY, TWO EVER-MOVING 'DOZERS AND A DRAGLINE WHICH IS USED ON OCCASION STRIPPING THE SLOPES.

JANUARY FIGURES FOR COMMON EXCAVATION FROM THE SLIDE WERE 348,423 YARDS AND FEBRUARY TO DATE, ARE 212,326. ROCK REMOVAL IS 1176 YARDS FOR THE SITE.

THIRTY CARLOADS OF GENERATOR PARTS FOR ONE MAIN UNIT HAVE BEEN RECEIVED, THE BUREAU REPORTS AND ASSEMBLY WORK IS UNDER WAY. THE 152-TON SHAFT FOR THE FIRST OF THE MAIN UNITS HAS BEEN SET UPRIGHT IN UNIT 9 FOR ROTOR ASSEMBLY. IT WILL LATER BE MOVED DOWN INTO PLACE BY CRANE. THE STATOR WILL BE ASSEMBLED IN UNIT 7 WHEN SUFFICIENT PARTS ARRIVE. THE SPIDER WAS DELIVERED TO THE POWER HOUSE NEARLY TWO WEEKS AGO.

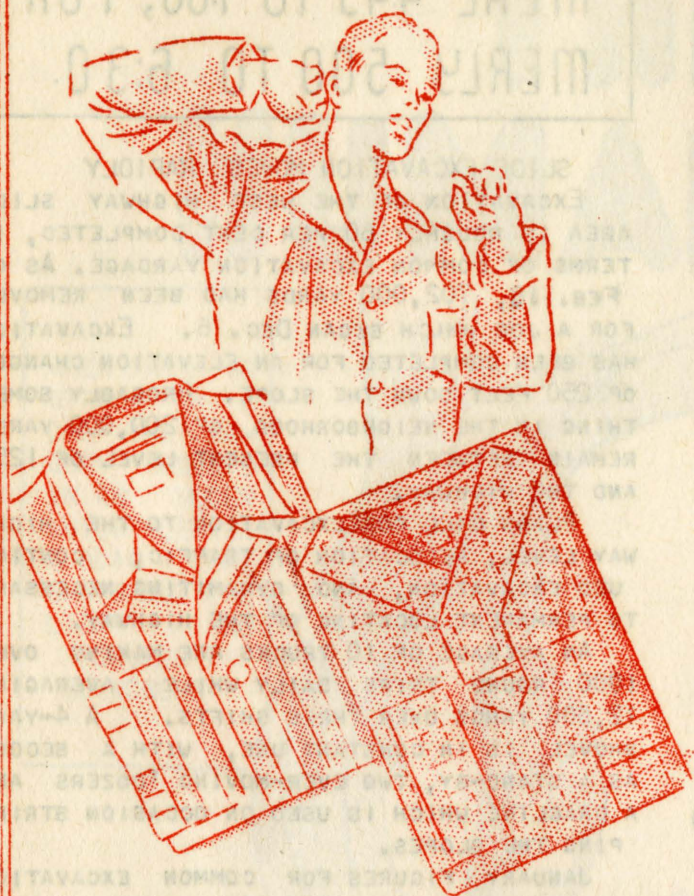
SHE'S ONLY A DENTIST'S DAUGHTER, BUT SHE RUNS AROUND WITH THE WORST SET IN TOWN.

THE MORE CARE YOU HAVE THE LONGER YOU LIVE.



**SALE**  
**25% OFF**

**PAJAMAS**  
◦ FLANNELETTES  
◦ BROADCLOTH  
◦ SILKS  
ALL SIZES-COLORS-STYLES



**25% OFF**  
**WOOL & LEATHER**  
**COATS**

**SILK & WOOL ROBES**  
**20% OFF**



**MASON CITY STORES**