

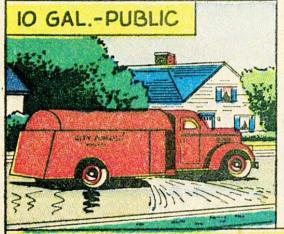
A GOOD WATER SUPPLY IS ESSENTIAL TO THE HEALTH,
CLEANLINESS, COMFORT, AND PROSPERITY OF YOUR
COMMUNITY. HERE IS HOW THOSE 150 GALLONS
OF WATER ARE USED IN YOUR COMMUNITY.

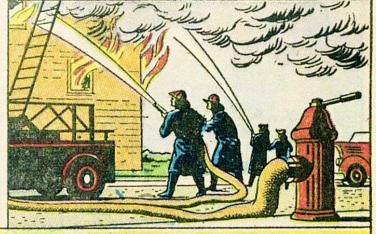


RESIDENTIAL USES OF WATER INCLUDING DRINKING, COOKING, LAUNDERING, FLUSHING TOILETS, BATHING, AND LAWN OR GARDEN WATERING.



A GOOD WATER SUPPLY ATTRACTS INDUSTRY, PROMOTES PROSPERITY IN YOUR COMMUNITY.





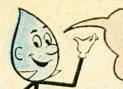
PUBLIC USES OF WATER INCLUDE FIRE FIGHTING, STREET SPRINKLING, SWIMMING POOLS, PUBLIC FOUNTAINS AND WATER FOR PUBLIC BUILDINGS.



THE CLEANLINESS OF EVERY PLACE OF BUSINESS,
AS WELL AS ITS OPERATIONS DEPENDS ON WATER. THE
FRESHNESS OF FLORISTS FLOWERS. SHAMPOOS AT BEAUTY
SHOPS, THE TASTE OF TEA AND COFFEE—ALMOST
EVERYTHING IN EVERYDAY LIFE EVEN LIFE ITSELF
DEPENDS ON AN ADEQUATE WATER SUPPLY



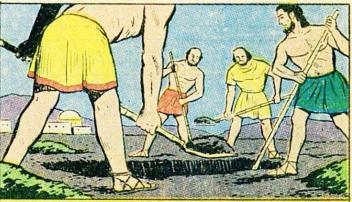
UNFORTUNATELY THERE IS ALSO SOME LOSS OF WATER THROUGH LEAKS AND BREAKS IN UNDERGROUND PIPES.



TODAY WE TAKE FOR GRANTED OUR SUPPLY OF SAFE WATER AT OUR FINGERTIPS, BUT IT WOULD HAVE BEEN A DIFFERENT STORY HAD WE LIVED IN AN EARLIER PERIOD IN MAN'S HISTORY...



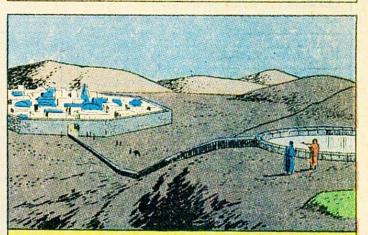
ANCIENT MAN HAD TO SCOOP HIS WATER FROM SPRINGS AND STREAMS, INSTINCTIVELY PICKING ONLY THOSE PLACES WHERE ANIMALS DRANK, AS A SOURCE OF SAFE WATER.



THE FIRST "PUBLIC WATER SYSTEMS" WERE WELLS. HISTORY TRACES THEM THROUGH THE AGES. THEY WERE USED IN PERSIA, PALESTINE, INDIA, AND CHINA BEFORE THE CHRISTIAN ERA. PERSIAN WELLS REACHED DEPTHS OF 80 TO 300 FT, AND ONE IN CHINA IS SAID TO HAVE REACHED 1,500 FT. DEEP.

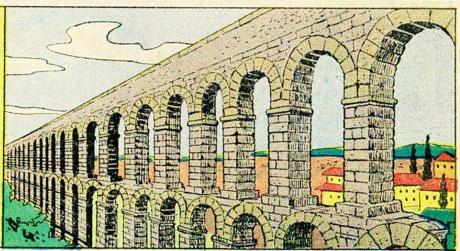


ANCIENT STRIFE OVER WATER IS FOUND IN GENESIS (21:30) WHERE WE FIND ABRAHAM SAID TO ABIMELECH IN A DISPUTE OVER A WELL"THESE SEVEN EWE LAMBS SHALT THOU TAKE OF MY HAND, THAT THEY MAY BE A WITNESS UNTO ME THAT I HAVE DIGGED THIS WELL!"



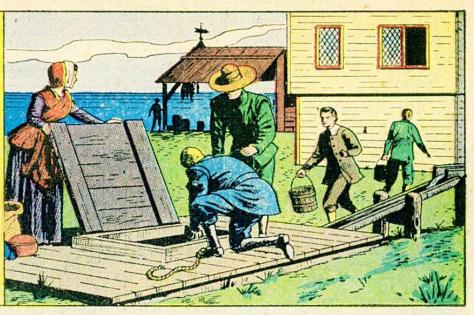
SOME CENTURIES LATER HEZEKIAH "MADE A POOL AND A CONDUIT AND BROUGHT WATER INTO THE CITY OF JERUSALEM" (IV KINGS 20:20) THIS TRANSPORTATION OF WATER BY PIPELINE WAS A MAJOR STEP FORWARD IN PUBLIC WATER SUPPLY.

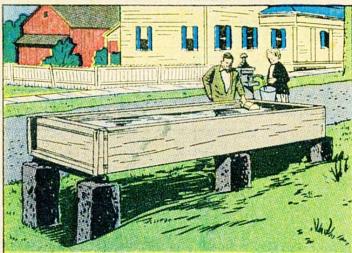
THE ANCIENT ROMANS BUILT NOTABLE WATER SYSTEMS, SOME PARTS OF WHICH ARE STILLIN USE. WATER WAS BROUGHT BY GRAVITY FROM MOUNTAIN SPRINGS THROUGH GREAT AQUE-DUCTS TO THE CITIES. CROSSING VALLEYS ON IMPOSING STONE ARCHES BUT IT WAS NOT UNTIL THE INVENTION OF STEAM PUMPS THAT WATER SYSTEMS AS WE KNOW THEM WERE BUILT.



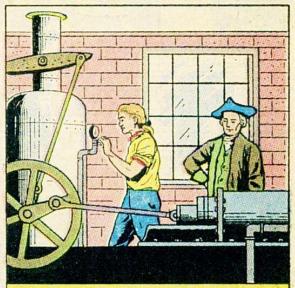
AND IN AMERICA . . .

AMERICA'S FIRST PIPED
WATER SUPPLY WAS BUILT
IN BOSTON IN 1652 ALONG
WHAT IS NOW KNOWN AS
CONDUIT STREET. WATER
WAS BROUGHT IN CONDUITS,
OR PIPES, FROM SPRINGS
AND WELLS TO A WOODEN
TANK (RESERVOIR) 12
FEET SQUARE, FROM
WHICH PEOPLE FILLED
THEIR WATER BUCKETS.

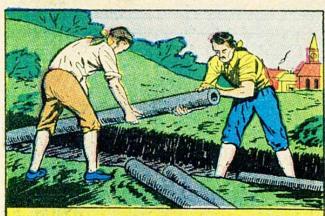




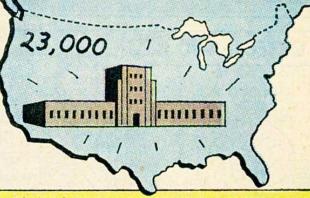
ABOUT 1746 A FARMER NAMED SCHAEFFER PIPED A SUPPLY OF WATER FROM A SPRING ON HIS PENNSYLVANIA FARM TO THE COMMUNITY NOW CALLED SCHAEFFERSTOWN IN HIS HONOR THIS WAS THE FIRST WATER SUPPLY BUILT TO SERVE AN ENTIRE TOWN.



THE FIRST WATER WORKS USING STEAM ENGINES TO PUMP WATER UPHILL WAS BUILT IN 1764 IN THE GERMAN MORAVIAN TOWN OF BETHLEHEM, PA.



IN 1774 MORAVIAN SETTLERS WHO HAD HEADED SOUTH FROM BETHLEHEM FOUNDED THE TOWN OF SALEM (NOW WINSTON-SALEM, N.C.) HERE THEY WORKED ON A GRAVITY SYSTEM OF WATER SUPPLY WHICH WAS COMPLETED IN MARCH 1776.



IN THE ALMOST CENTURY-AND-A-HALF, FROM BOSTON'S CONDUIT SUPPLY TO 1800, HISTORY RECORDS ONLY NINE WATER WORKS IN AMERICA. TODAY MORE THAN 23000 WATER WORKS SUPPLY BILLIONS AND BILLIONS OF GALLONS DAILY TO MORE THAN 175 MILLION PEOPLE IN THE U.S. AND CANADA.

(10) F

THROUGH THE CENTURIES THE SEARCH FOR SAFE WATER KEPT PACE WITH CIVILIZATION. DOWN THROUGH THE AGES MAN STRUGGLED FOR EXISTENCE, RELIED ON AN INADEQUATE WATER SUPPLY.



"IT IS DIRECTED TO HEAT FOUL WATER BY BOILING AND EXPOSING TO SUNLIGHT AND BY DIPPING SEVEN TIMES INTO IT A PIECE OF HOT COPPER, THEN TO FILTER AND COOL IN AN EARTHEN VESSEL."

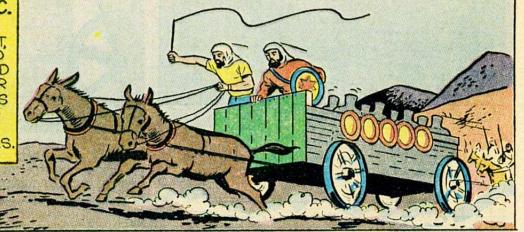
EGYPT-1450 B.C.

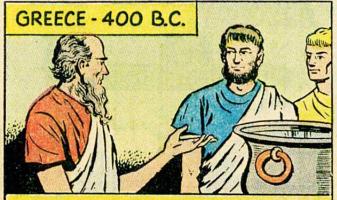


SIPHONS WERE USED IN ANCIENT EGYPT TO DRAW CLEAR WATER FROM JARS AFTER THE THICK SEDIMENT, FROM THE NILE, HAD SETTLED TO THE BOTTOM.

PERSIA-600 B.C.

CYRUSTHE GREAT, WHEN GOING TO WAR, TOOK BOILED WATER IN SILVER FLAGONS OR JARS LOADED ON FOUR-WHEELED CARTS DRAWN BY MULES



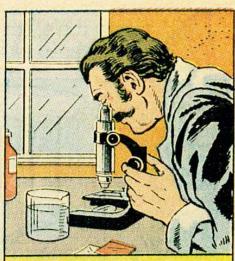


HIPPOCRATES THE FATHER OF MEDICINE ASSERTED THAT RAIN WATERS SHOULD BE BOILED AND STRAINED FOR OTHERWISE THEY WOULD SMELL BAD AND CAUSE HOARSENESS.



FRONTINUS DESCRIBED SETTLING RESERVOIRS AND PISCANAE, OR PEBBLE CATCHERS BUILT INTO THE AQUEDUCTS,

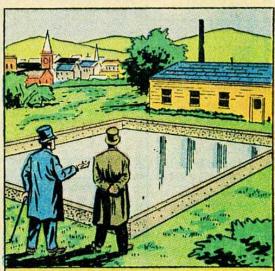




IN 1885 LABORATORY EXAMINATION OF LONDON'S WATER SUPPLY FIRST SHOWED THAT BACTERIA, AS WELL AS THE LARGER IMPURITIES, WERE REMOVED BY FILTERS.



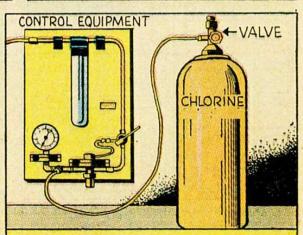
IN 1892 THE VALUE OF FILTRATION WAS PROVED WHEN AN EPIDEMIC OF CHOLERA STRUCK THE CITIZENS OF HAMBURG, GERMANY, WHO DRANK UNFILTERED WATER FROM THE ELBE. JUST ACROSS THE RIVER WHERE THE WATER SUPPLY WAS FILTERED, RESIDENTS OF ALTONA REMAINED HEALTHY.



THE FIRST SUCCESSFUL FILTERS IN THE UNITED STATES WERE INSTALLED IN POUGHKEEPSIE, N.Y., IN 1872



IN 1902 ONE OF THE FIRST FILTER PLANTS WITH MODERN MECHANICAL FILTERS WAS BUILT AT LITTLE FALLS, N.J. THESE FILTERS ARE STILL BEING USED BY THE PASSAIC VALLEY WATER COMMISSION.

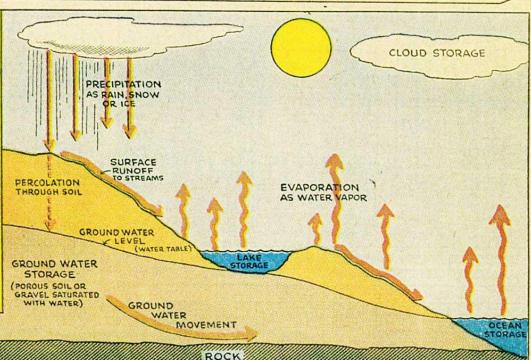


THEN,IN 1912, LIQUID CHLORINE WAS FIRST APPLIED TO DESTROY DISEASE— PRODUCING BACTERIA. TODAY EVERY LARGE CITY CHLORINATES ITS WATER

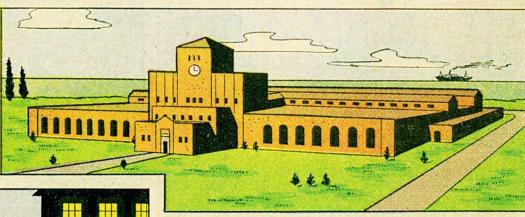


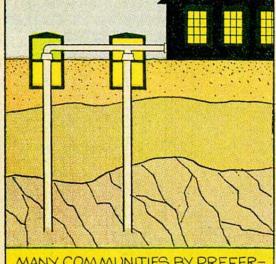
NOW FOLKS, LET US SEE HOW OUR MODERN WATER SUPPLY SYSTEM WORKS-THE FIRST THING TO CONSIDER IS THE SOURCE OF WATER



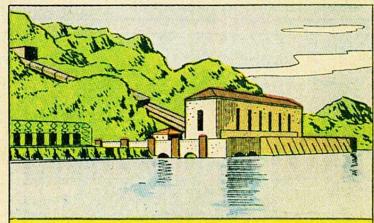


MANY LARGE
CITIES USE
THE WATER
FROM THE
RIVERS OR
LAKES ON
WHOSE
SHORES THEY
WERE
FOUNDED





MANY COMMUNITIES BY PREFER-ENCE OR BECAUSE NO LARGE BODY OF SURFACE WATER IS AVAILABLE DEPEND ON UNDERGROUND SOURCES SUCH AS WELLS AND SPRINGS FOR THEIR WATER SUPPLIES

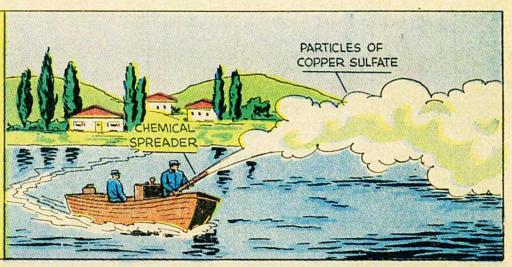


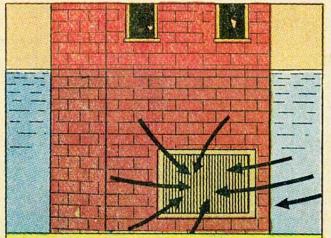
SOME CITIES LIKE NEW YORK AND LOS ANGELES BRING WATER MANY MILES FROM UPLAND SOURCES, WATER FROM THE COLORADO RIVER IS CARRIED 400 MILES THROUGH AQUEDUCTS AS LARGE AS 16 FEET IN DIAMETER TO SUPPLY FOUR MILLION PEOPLE IN SOUTHERN CALIFORNIA.



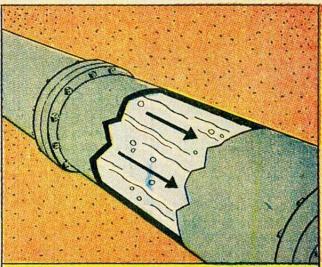
SOME OF THE THINGS YOUR WATER FROM SURFACE SOURCES HERE ARE SOME OF THE THINGS YOUR WATER WORKS MAY HAVE TO DO TO IT ON THE WAY TO YOUR FAUCET....

DE YOUR SUPPLY
COMES FROM A
LAKE OR RESERVOIR,
THE WATER THERE
WILL SOMETIMES
REQUIRE TREATMENT
WITH CHEMICALS
TO CONTROL THE
GROWTH OF MICROSCOPIC PLANTS,
CALLED "ALGAE"
WHICH CAN CAUSE
BAD TASTE AND
ODORS IN YOUR
DRINKING WATER



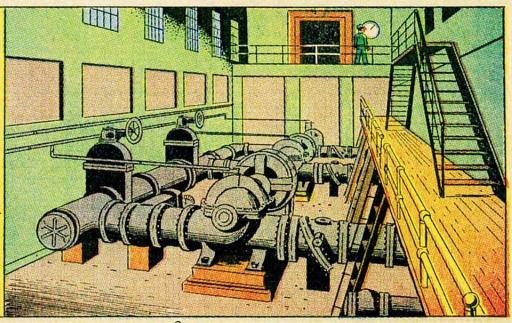


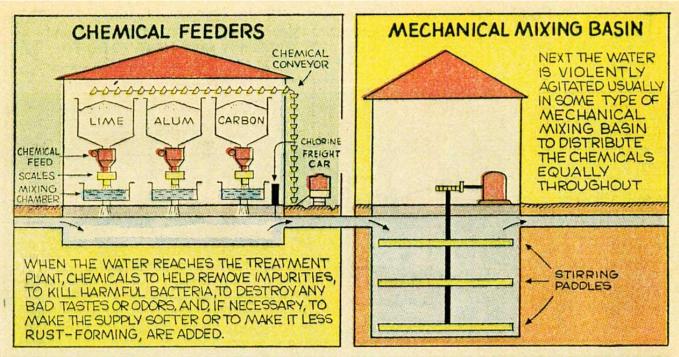
SURFACE WATERS ARE DRAWN INTO THE SYSTEM THROUGH AN INTAKE STRUCTURE WHICH IS SCREENED TO KEEP OUT STICKS AND OTHER DEBRIS AS WELL AS FISH



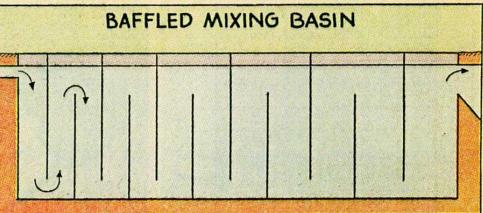
NEXT COMES ATRIP THROUGH A LARGE TRANS-MISSION LINE TO THE TREATMENT PLANT

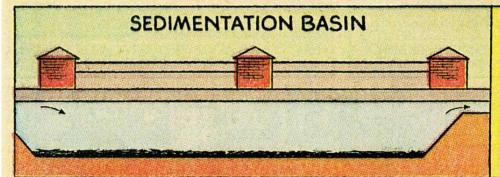
LTHOUGH THE
TRIP IS OCCASIONALLY MADE BY
GRAVITY FLOW,
MOST OFTEN THE
RAW WATER MUST
BE PUMPED FROM
THE SOURCE TO
THE PLANT, BEFORE
THE WATER ENTERS
THE TREATMENT
PLANT, THE AMOUNT
IS MEASURED.





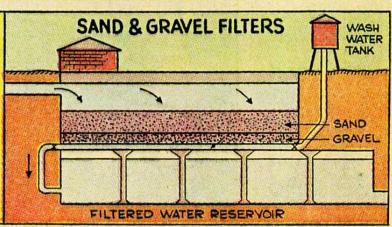
THE MIXING IS THEN CONTINUED LESS VIOLENTLY EITHER BY REDUCING THE SPEED OF THE MECHANICAL MIXERS OR BY ZIG—ZAG FLOW AROUND A SERIES OF PARTITIONS IN A BASIN. THIS ADDITIONAL MIXAIDS THE REACTION OF THE CHEMICALS WITH THE WATER.





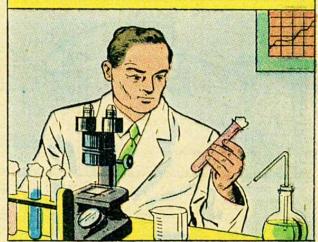
FOLLOWING COMPLETION
OF THE CHEMICAL REACTIONS, THE WATER
ENTERS THE SEDIMENTATION BASINS,
WHERE, WITH THE
WATER ALMOST STILL,
MANY OF THE CHEMICALLY TREATED IMPURITIES SINK TO
THE BOTTOM

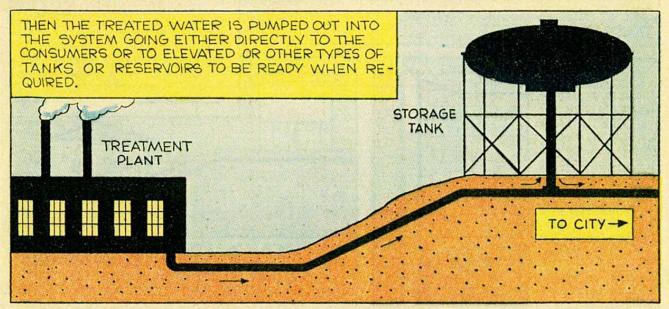
CLARIFIED WATER GOES THROUGH
FILTERS, WHERE SAND AND GRAVEL
STRAIN OUT THE REMAINING IMPURITIES, TO A FILTERED WATER
RESERVOIR. BECAUSE THE 1MPURITIES COLLECT ON THE SAND,
THE FILTERS MUST BE KEPT
CLEAN. THIS IS DONE BY WASHING WITH FILTERED WATER, USUALLY FORCED UPWARD THROUGH
THE GRAVEL AND SAND AND THEN
DRAINED OFF IN SPECIAL GUTTERS

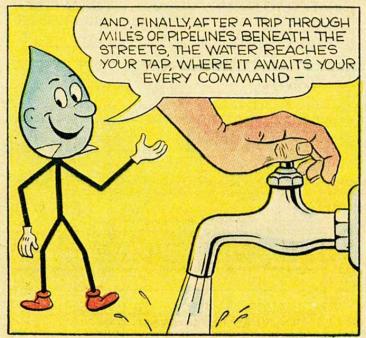




BEFORE AND DURING ITS TREATMENT, AS WELL AS WHILE IT IS IN THE DISTRIBUTION SYSTEM, WATER IS KEPT UNDER CONSTANT CHECK IN THE LABORATORY OF THE TREATMENT PLANT.



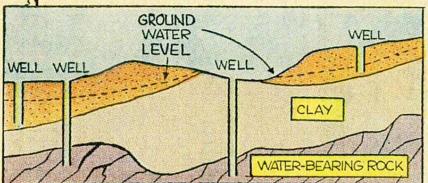




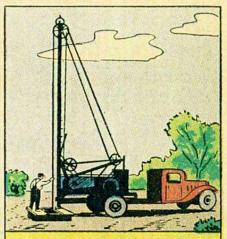




IF YOUR WATER SUPPLY COMES FROM UNDERGROUND SOURCES IT WILL USUALLY REQUIRE LESS TREATMENT, AS THE GROUND ITSELF WILL PERFORM MUCH OF THE FILTRATION AND PURIFICATION.

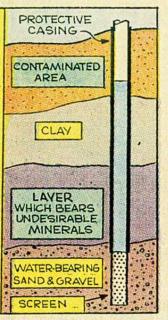


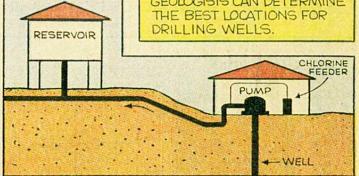
WELLS DRAW WATER FROM POROUS UNDERGROUND FORM-ATIONS RESTING ON TOP OF NONPOROUS FORMATIONS. DEPENDING ON THE GEOLOGY OF THE AREA, THE GROUND WATER MAY BE AT ANY DEPTH-IN SOME PLACES CROP-PING OUT ABOVE THE SURFACE IN SPRINGS AND POOLS AND AT OTHERS SINKING TO MANY HUNDREDS OF FEET BELOW THE SURFACE.



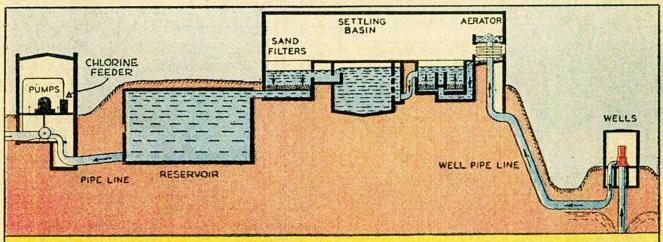
FROM THEIR KNOWLEDGE OF THE UNDERGROUND STRUCTURE OF AN AREA, BY THE SINKING OF TEST WELLS, AND BY USE OF SCIENTIFIC EQUIPMENT, GEOLOGISTS CAN DETERMINE THE BEST LOCATIONS FOR DRILLING WELLS.

WELLS MUST BE CAREFULLY DEVEL-OPED BY COMPET-ENT DRILLERS TO SECURE THE LARG EST QUANTITY OF WATER. THE WELL MUSTALSO BE CAREFULLY SEAL-ED OFF FROM ALL UNDERGROUND FORMATIONS EX-CEPT THE ONE FROM WHICHTHEYARE TO DRAW THEIR SUPPLY SOTHAT IMPURITIES LIKELY TO BE ENCOUNT-EREDAT SHALLOW DEPTHS WILL NOT CONTAMIN-ATE THE WATER



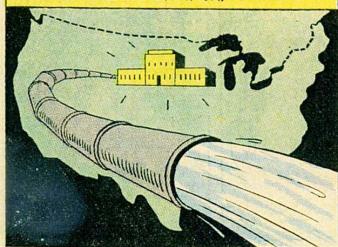


BETWEEN THE TIME THE WATER EMERGES FROM THE WELL AND THE TIME IT IS PUSHED OUT INTO THE REGULAR DISTRIBUTION SYSTEM BY THE WELL PUMP, IT RECEIVES SUCH TREATMENT AS THE LOCAL CONDITIONS REQUIRE. WHEN ONLY CHLORINATION TO DESTROY HARMFUL BACTERIA IS REQUIRED, A SIMPLE FEEDER IS USUALLY HOOKED UP TO OPERATE WITH THE PUMP.



ELSEWHERE THE TREATMENT MAY BE MORE ELABORATE, REQUIRING SOFTENING, REMOVAL OF DISCOLORING MINERALS AND IMPROVEMENT OF TASTES AND ODORS

MERICAN WATER WORKS NOW SUPPLY
MORE THAN 20 BILLION GALLONS OF
WATER EVERY DAY — ABOUT 85 MILLION
TONS OF PRODUCT EVERY DAY

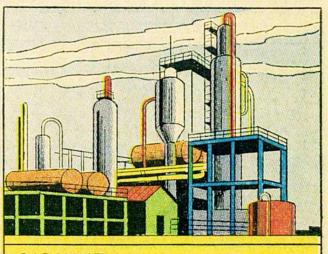


- ENOUGH IN A YEAR TO FLOOD AN AREA A FOOT DEEP AND MORE THAN 10 MILES WIDE ALL THE WAY ACROSS THE U.S.

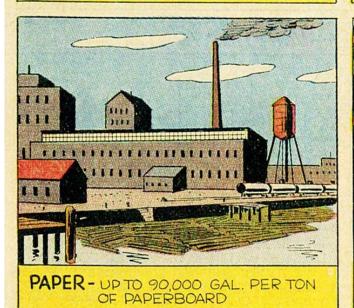


IN ADDITION TO SUPPLYING PERSONAL REQUIREMENTS THIS SUPPLY IS AN IMPORTANT FACTOR IN INDUSTRIAL PRODUCTION-FOR WASHING, COOLING, AND SPECIAL PROCESSES.





GASOLINE - 500 GAL. PER GAL. OF GASOLINE





TEXTILES - 510 GAL PER YARD OF WOOLEN CLOTH

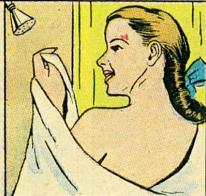


WATER IS PRECIOUS! A CITY WITHOUT AN ADEQUATE WATER SUPPLY IS A CITY WITHOUT A FUTURE.

WATER PROTECTS AND PROMOTES PUBLIC HEALTH ..

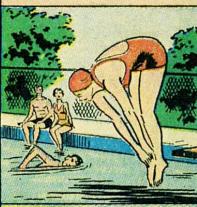


SAFE PUBLIC DRINKING WATER HAS ELIMINATED WATER-BORNE DISEASES SUCH AS TYPHOID AND CHOLERA.



INEXPENSIVE AND CONVENIENT, A PURE WATER SUPPLY MAKES CLEANLINESS, BOTH PERSON-AL AND PUBLIC, EASY.

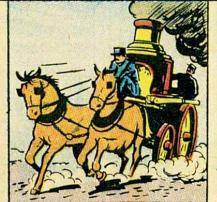
TT CONTRIBUTES TO RECREATION...



SWIMMING POOLS MAKE SEASHORE FUN AVAILABLE ALMOST EVERYWHERE.

IT STRENGTHENS YOUR FIRE DEFENSES

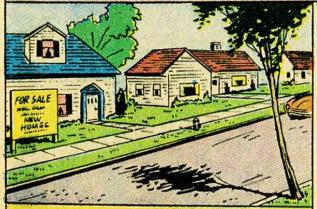




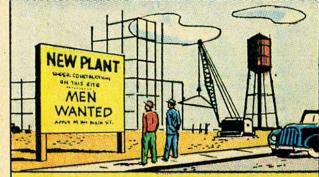


FROM BUCKET BRIGADE TO PRESENT DAY FIRE FIGHTER, WATER HAS BEEN THE ESSENTIAL ELEMENT. THE BETTER YOUR WATER SUPPLY, THE SAFER YOU ARE FROM DAMAGING FIRES, AND THE SAFER YOU ARE, OF COURSE, THE LESS YOU NEED PAY FOR FIRE INSURANCE.

IT STIMULATES COMMUNITY GROWTH ...



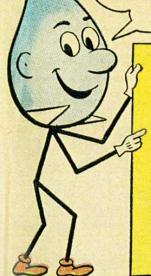
NEW AREAS ARE OPENED TO DEVELOPMENT AS WATER SUPPLY IS MADE AVAILABLE; AND THE CITY GROWS WITH SUCH DEVELOPMENT.

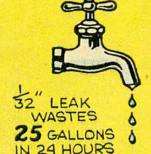


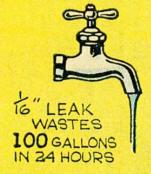
ALMOST ALL TYPES OF INDUSTRY REQUIRE LARGE QUANTITIES OF WATER, FOR AIR CONDITIONING IF NOT FOR PROCESSING. THE CITY THAT HAS INADEQUATE SUPPLY WILL NOT ATTRACT NEW BUSINESS.

WATER IS PRECIOUS - USE IT BUT DON'T WASTE IT!

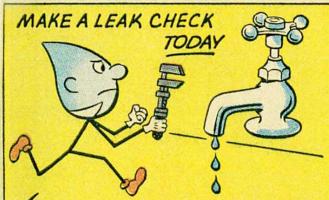
A SLOW DRIP WASTES 15 GALLONS PER DAY!











CHECK ALL FAUCETS FROM ATTIC TO CELLAR.

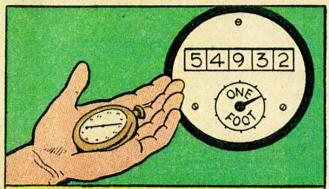
WATCH HOT WATER FAUCETS PARTIC - ULARLY; THE HEAT AFFECTS THEM AND YOU LOSE BOTH WATER AND HEAT.

CHECK FLUSH TANKS OF TOILETS BY PLACING LAUNDRY BLUING IN TANK AND WATCH-ING BOWL TO SEE IF IT LEAKS THROUGH.

CHECK OUTSIDE WATER TAPS TO SEE THAT THEY ARE TURNED OFF WHEN NOT IN USE; DON'T DEPEND UPON THE HOSE NOZZLE, USE THE FAUCET.

TURN OFF FAUCETS THAT ARE HOOKED UP TO WASHING MACHINES AND OTHER WATER-USING EQUIPMENT WHEN IT IS NOT IN USE, BOTH TO PRESERVE EQUIPMENT AND TO AVOID LEAKS.



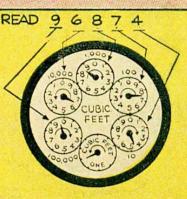


USE YOUR METER ...

TO MAKE A CHECK FOR INVISIBLE LEAKS, TURN OFF ALL WATER TAPS IN THE HOUSE AND OUTSIDE AND WATCH THE "UNE LUBIC FOOT" OR "TEN GALLON" INDICATOR TO SEE IF IT MOVES. BY TIMING THE MOVEMENT YOU CAN DETERMINE HOW MANY CUBIC FEET OR GALLONS PER MINUTE ARE BEING WASTED. ONE CUBIC FOOT EQUALS 7½ GALLONS.

HOW TO READ YOUR WATER METER

THE STRAIGHT READING TYPE OF METER (AT LEFT) IS READ LIKE AN AUTO-MOBILE SPEED-OMETER. THUS THE READING ON THE METER AT THE LEFT WOULD BE"5 4,932 CUBIC FEET"



THE CIRCULAR READING METER, PICTURED HERE, IS READ BY NOTING THE FIGURES ON THE DIALS AS SHOWN IN THE ILLUSTRATION. WHEN A POINTER IS BETWEEN TWO FIGURES READ THE LOWER FIGURE. IF A POINTER SEEMS TO BE DIRECTLY ON A FIGURE, READ THE LOWER FIGURE, UNLESS THE POINTER ON THE NEXT LOWER DIAL HAS PASSED ZFRO.



Communities Served by

HACKENSACK WATER COMPANY

Alpine

Bergenfield

Bogota

Carlstadt

Cliffside Park

Closter

Cresskill

Demarest

Dumont

East Rutherford

Edgewater

Emerson

Englewood

Englewood Cliffs

Fair Lawn

Fairview

Fort Lee

Franklin Lakes

Guttenberg

Hackensack

Harrington Park

Hasbrouck Heights

Haworth

Hillsdale

Leonia

Little Ferry

*Lodi Borough

Maywood

Montvale

Moonachie

New Milford North Bergen

Northvale

Norwood

Old Tappan

Oradell

Palisades Park

Paramus

Ridgefield

Ridgefield Park

River Edge

River Vale

Rochelle Park

Rockleigh

Rutherford

Saddle Brook

Secaucus

South Hackensack

Tegneck

Tenafly

Teterboro

Union City

*Wallington

Washington Township

Weehawken

West New York

Westwood

*Woodcliff Lake

Wood-Ridge

*Municipalties partially Served

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