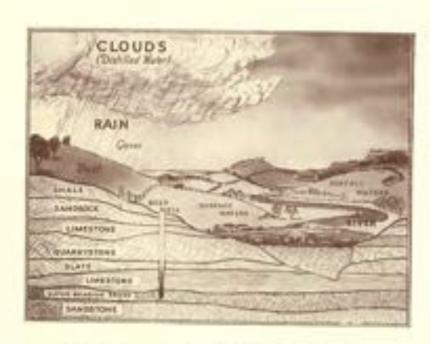


### OUR OBJECTS IN SENDING YOU THIS LITTLE BOOK:

To acquaint you with the peculiarities of "water,"

To explain why it is not always perfect, adversely affecting your health, comfort and pocket.

And finally to show how simply all these imperfections can be banished from its life-giving stream.



All mater that you use, over come from the clouds at now. Then over the general, through layers of miles, of sond, of costs and so to your home. But by then it is no longer just mater.

### The Magic of Soft Water

Water looks clear HE water from your tap looks clear, doesn't it? You would never think that it contains mineral compounds injurious to skin, hair, food and clothing. That it causes you countless hours of needless drudgery.

But the fact is, it really does such things. For water is a mysterious substance, capable of many unsuspected tricks. Before it finds its way into your well...your city reservoir, it has wandered far...done many things. Swept before it bits of rock...soaked into the soil, hubbled up again in springs, flowed through valleys, everywhere, dissolving lime, magnesia and other minerals from the earth's surface wherever it went.

How it becomes "hard" Despite modern equipment and careful processes, your water company doesn't change materially the mineral content of your water. Lime, magnesia compounds, and sometimes suspended dirt, remain. Perhaps in your

How " Curds"

locality, the water may be so high in mineral content that you really can't use it for washing and bathing. It's too hard. But most localities, using the ordinary town supply water. find that it is unsuitable-certainly very costly are formed because of the damage done by hard-water " curds." "Hard-water curds " (formed when soap and minerals merge to produce microscopic gummy particles) clog pores, cling tenaciously to fibres of linens, cottons, woollens -stick to your hair. Just as soon as you put soap into water, curds form. You've seen them on the surface of water, and clinging as a "rim" round the bath.



Aligned souther and south mader Hubbs, grey carely. Soft. mater and may make close mater, specking such as shows on the viste.

What it does to akin

This "hardness" in water is one of the greatest known causes of chapped, coarsened skin...clogged pores...dryness, scaliness... and "dishpan hands."

Such troubles come, it is known. from these clinging, gummy, microscopic curds, which instantly lodge in pores. Too small to see, but sticky and embedded-they may undo all the excellent work of your akin creams and hand lotions.



Enlarged plumpaph of girl's check.

Indeed, these mineral impurities (often harsh, always irritating) are probably your skin's worst enemy. Because you are rarely ever aware of their accumulation in your pores until they have caused enlargement... irritation...and other troubles.

An enemy of hair beauty

And the same insidious, gummy curds cling to your hair when you wash it-destroy its lustre, make it sticky, dull, stringy.

So please don't expect fluffy, glossy, clean hair unless you shampoo with completely softened water-do as leading hairdressers are doing-use water completely softened the "Permutit " way.





Wears out clothes faster

See the photograph at the bottom of this page. It shows how linens, cottons, silks ... wear out much too fast! Perhaps you don't realize it. But every time you wash your clothes, the mineral impurities in every drop of water raise havne with the fabric

Those microscopic, gummy curds deposit on the very fibres, making them stiff and rough...eventually breaking and destroying them !

Recent figures give dramatic proof of this. In one large botel system, accurate long-time tests showed that completely softened water added three months' life to every year of service that their linens used to give.

Just think what this means to you. A saving of at least one-quarter in your clothing and linen expenses if you will simply use water with all the "hardness" (mineral

impurities) removed.

In addition, it means much brighter or whiter clothes! In much less time.

Many holes in fabrics do not come from hard some -they are noted by hard Hard Water Wastes Foods

Hard water is also a poor cook-a spendthrift in your kitchen. It toughens green peas, beans, potatoes makes poor pastry. Foods must be cooked much longer, thus losing much of their natural, good flavour.

It causes loss of flavour in coffee and tea-Actually hard water makes you use one-third more coffee or tea than is really necessary.

Clogs Heating Systems

Consider this too! Would you fill your water pipes with cement? Of course not. Yet that is practically what you are doing when you continue to use hard water. Every

day your entire water system-especially the hot water pipes-is accumulating cement-like deposits-mineral deposits -that form when ordinary water is heated.



Not rest -but scale: It forest in any bind of pipe: iron, incl. at black

This causes trouble. Cold "hot" baths. Cuts down water-flow. Makes the cost of heating water much too high.

Costs you money

Don't blame the plumber if he has to come too many times! Soften your water supply completely. And you save money, time and trouble.

Hard Water and Poor Health Most waters contain lime and magnesia salts greatly in excess of what is good for health. Gout, rheumatism and liver complaints are often directly traceable to this cause, which is entirely removed by the use of "Permutit" Softened Water.

A few Beauty hints Dust and grime from cities are everywhere they can't be kept away from skin. They deposit, causing blemishes of the skin.

Millions of women use cleansing creams and other preparations for their complexions, because water, as usually found, is unsuitable. When water is softened, however, it quickly, gently removes all traces of grime. Soft water with pure mild soap is nature's own beauty treatment.

Wrinkles are often prematurely caused by dry skin. And hard water soap curds are a fundamental cause of skin dryness. Soft water stimulates skin's natural beauty, keeps complexions young.

In manicuring, hard water curds deposit round finger rails, and under them. They toughen the cuticle, cause hangnails at times. Finger nails soil more easily as the sticky curds collect grime. Soft water softens cuticle like magic—excess cuticle just rubs off! And nails have a natural pearly lustre,

### THE SAVING IN SOAP, SODA AND TEA

Striking confirmation of the efficiency of "Permutit" is given in the following extracts, supplied by the Master, from the account books of a large Institution, where a "Permutit" Water Softener was installed in December, 1923.

#### Issue of Stores

Before and after adoption of Water Seftence During the whole period under review the Washinson was full:

Week ending in Nov. 1923 Tea: 13-lbs, 6-oz. Corresponding week, 1924 saving 21.5 % Tea: 10-lbs, 8-oza. Michaelmas quarter 1923 Soap : 288-lbs. Michaelmas quarter . 1924 saving 53.8 % Soap: 133-lbs. Michaelmas quarter . 1923 Soda: 1,272-lbs. Michaelmas quarter , 1924 saving 59-3 % Soda: 518-lbs.

BOILERS never require cleaning.

HOT-WATER PIPES remain clean for all time.

Water is HEATED in the smallest possible time, and with the minimum consumption of fuel.

Everyone knows that bacteria breed prolifically in stagnant water. That is why health departments warn against it.

Why cistern water is dangerous

Yet the common rain water cistern is a breeding place for dangerous bacteria, . . carried there from your roof and gutters. And every rainfall flushes in a fresh supply.



Typical seguritors aren in citaren austre absorpt the microscope.

Questionable cistern water is as unhealthy as it is old-fashioned. The "Permutit" Water Softener connected into any water supply system assures marvellously clear soft water from every tap in the house. No chemicals are added to the water.

How Permutit softens water "Permutit" Water Softeners contain a remarkable mineral substance called Permutit, that has the property of extracting automatically all the hardness from any water. Your water supply simply flows through this mineral bed on its way to your tap and is made completely soft. Every week or two, you put in the softener a solution of common salt, which restores absolutely all the original water-softening power to the mineral. The piping is so arranged that salt cannot get into your house pipe lines. This operation we call "regeneration."

#### Here are a few well-known users:-



Major Hennesey Geo. Bernard Shaw Lord Seymour Sir Geo. Lawson Johnstone Lady Keppel A. Bendir Lady Barons The Marchionesa Curson of Kedleston W. F. Fladgate Counters of Aylesford The Earl of Coventry The Earl of Macdesfield Marquis of Zetland Hon. Mrs. Schag Montehore Lord Calthorpe Col. Guinness Sir Edward Harrison Mr. Rudyard Kipling Sir Henri Deterding Sir Robert McAlphine Sir Arthur Churchman Sayton Noble

Edward Hickman E. R. Debenham Sir Chas. McLeod A. Noel Mobbs E. J. Horniman Sir Edmund Davis Sir Geo. Cooper Lord Willoughby de Broke Col. Banham Caner R. H. Foa Col. Hoelick Sir Hugo Cunliffe-Owen Marquis of Ailsa Granville Barker Six Thomas Barlow -Mortimer Mempes Maj. Gen. Six C. E. Pereira Sir A. Ducros Victor Blagden Duchess of Portland

### THE PERMUTIT RANGE OF HOUSEHOLD WATER SOFTENERS

Comprises Softeners of all sizes, from the "Permodo" Jug for filling from a tap, up to the large "B" type plant for country mansions.

Every need and home is catered for, and on the following pages we give details of all our household types, together with tables of capacities and hardnesses of water, that will help you to decide the particular model best suited to your needs and home.

Our free advice is gladly at your disposal to help you in any way, and the return of the enclosed prepaid reply card will bring you full details of any models and the name of our nearest agent.

000

UNFOLD

### READ THIS COMPARISON

	BAND WATER	SOFT WATER		
Wids Soap	Form you code, here see.	Profess forcing later with just a court of emp.		
In Belong	Makes this dozen, and pridip— rings press, presenting proper size. Indian of potents by the skin.	Kings, skin self and come as become proposed. Kanga prove few , allows tools to breather.		
In Steepoolog	Deposits sticky soap cords in hair, duding horse, prosing believes, destroying sense.	Makes have really clear and planes- ing. Transverse all of statural wave- and orders.		
In Beauty Culture	Makes in impossible to vice-registe clustes skin. Stop curds aggreent venibles, office court anglitus.	Keeps skin glinengly steen, free from the blerishes hard water comm.		
la Siaving	Makes a water-proof energy of one comb around each whoder incept wook from softening flows second even the chapped blade on the definal.	Thomspily, quittle solute the temptor based. Makes also super-makes bindes had tempto.		
ls, Weshing Dishes	Compression on oblica and plant- west, which have to be possibled off by regreene wighting.	Chalue up just be drained steen. More pursue its not need to be smalled by a rowel.		
In Removing Greate	Makes work differelt. Advance impos- able to completely return grosse.	Cuts greate like stage. Store haves of closeing data.		
In Hone Laundering	Water soap, disminure clother, other reconstruct torce hard weat- ing, thereton life. Maker partitions and, hards and ramed.	Uses retrained of map, one 600; to one-half as much in below. Makes election only, ewest, close. Prolongs life.		
In Washing Woodwork, Percelain, sto.	Calls for bard sometrag - huma fe- ids. Leaves dist-collecting, volky film.	Preserves having because only a stuly strain is decided.		
In Figur	State electric done flow of name. Makes have step recommends.	Kanga pipes free from scale. Tapa over rightly.		
In Water Heater	Deposits york-like scale in red. Fuel as seated. Not amough her super.	Colle list their full life. Minimum of foat is evenemed. Planty of last suites.		
In Steen Boders	Water finit. Needs a long time for secure to come up.	here for, freeze soldly.		
In Motor Car Radiators	Will exemply the fire biles, soming contenting botton area of many, received explosioners of soliton.	Keeps reduced in efficient condi- tion. Keeps today operating a proper compression. Keeps nar code in automa.		
In Milling Pastry	Tools to make sout tough-	More must fally and sendor.		
In Cooling Green Vegetables	Templers than, years be of	Kape from tender with all natural backness. Need less centering		
In Making Yes and Collin	Impain facur-water reprint	Gree a best former. Seen as much as seconded too and order,		
For Debising	Maril water in confinements forecomed	A "Parmois" Water Software species colories and magnetium. Adds to chatterals.		

### ON CHOOSING YOUR PLANT

The next five pages detail the portable types—the "Permodo" Jug, the "Permo" (for fitting over a wash basin or sink) and the "Bath" models for laying across your bath. These last two are attached by means of a rubber hose to your existing taps.

Your choice is therefore simple. The "Permodo" Jug for your pantry or dining room. The "Permo" No. 1 for your bathroom, drinking water and toilet. The No. 2 "Permo" for these purposes and, as it is larger, for cooking, washing silks, woollen goods, dishes, etc.

All mains types

These are for softening the supply to every tap in the house. These are the models of most utility, as by fitting them on to the main you obtain abundant soft sparkling water at every tap, and all the booms and savings of soft water are fully realized. Not only is your personal health and comfort assured, but the large economies already detailed are experienced to their full extent, as every service in your home benefits.

The three models are "The Junior"-for the cottage, villa and small home. The "C" type for larger houses, and the "B" type for country mansions, large town houses, clubs, etc.

Finally, there is our completely automatic plant, which, without any attention, and for months at a time, will give soft water to your home. It is fully described in "The Book of the Automatic 'Permutit.'" Write for it.

### THE "PERMODO"

Portable Water-Softening JUG





Fill with " hard."

Pour out with " soft,"

No tap connections are required, you place it under the tap as you would any ordinary jug-and you pour out soft water.

in today's Monday

£261 (2015)

Place a "Permodo" in your spare room and give your guest soft water.

## "PERMO"

The Popular Portable Water-Softener can be connected to any tap



PATERCED REGD, DESIGN

"PERMO" No. 1

Height 12" Width 6" Output 50 gallons £261 in today's Monday (2015)

"PERMO" No. 2

Height 194" Width 6" Output 100 gallons £6 6 0 £392 in today's Monday (2015)

N.B. The expective are based on the hardress of the London supply).

Wall bracket complete for either of the above models (if required) - 6s. 0d. each

The "Permo" is designed to meet the needs of those who require a constant supply of softened water at one point only. Beautifully finished, in strong white porcelain with chromium-plated fittings, it is supplied complete with rubber hose connection and patent tap union, or it can be connected direct to the supply main as a permanent fitting. This efficient little water softener is made in two sizes. "Permo" No. 1 and "Permo" No. 2, which are identical, except that "Permo" No. 2 is larger and consequently a greater capacity of softened water can be obtained before attention becomes necessary. Alternative points for both the inlet and outlet of the "Permo" are provided, so that it can occupy any convenient position-above or at either side of the lavatory basin or kitchen sink, and is always to hand ready to give a supply of perfectly softened water by simply turning on the tap.

The "Permo" is constructed throughout of porcelain, with chromium-plated fittings of the finest quality. It is, therefore, absolutely rust-resisting and will retain its clean and smart appearance indefinitely with the minimum of care.

The only attention required by the "Permo" is periodical regeneration, which means passing through the container a small quantity of common selt when the softening capacity of the plant has been exhausted. To do this, all that is necessary is to remove the ingenious plug stopper, which is effected by turning the handle at the top of the container, then the salt is placed in the funnel which thus becomes exposed, and the tap turned on—that is all. By this simple process the "Permo" is ready to continue its duties and to give a further supply of softened water.



### Bath Water Softener

PATENT APPLIED FOR DENGN REGO.



£457 in today's Monday (2015)

Available in white, blue or green porcelain enamel. The price includes for the Softener complete with chromium-plated extension pieces and tap fittings.

Special patent connections supplied, guaranteed to fit any shape or size of bath tap, absolutely water-tight and drip-free. By using the portable "Permutit" Bath Water Softener you can turn on your bath and turn on soft water with the same action. The "Permutit" Bath Water Softener fits lightly across the bath in exactly the same way as the wooden soap and sponge tray does. It has a flexible connection which can be instantly attached to the hot and cold taps, and all you have to do is to turn on the water to get a full bath of the softest water it is possible to obtain.

There are no pipes, no valves, no moving parts. No attention is needed by the "Permutit" Bath Water Softener except the unscrewing of a cap now and then, and putting in a small quantity of kitchen salt. One regeneration will give enough soft water for several baths. With water of such silky softness, no bath salts are required, as well as effecting a saving of at least half the usual quantity of soap.

Its tap coemections are capable of fitting any size or shape of bath tap, and its extensible supports make it very easy to fit to a bath of any width. One of the greatest luxuries attending the use of soft water is the soft-water bath. The "Permutit" Bath Water Softener now makes it possible for you to have a soft-water bath wherever you go—in your flat, your seaside bungalow or country cottage, in a hotel or a friend's house.

#### No bath salts-50% saving soap

Its price renders it the cheapest water softener for its size and quality ever produced.

Get one for yourself, and let the "Permutit". Bath Water Softener introduce to you the many inestimable benefits of soft water.

### The Junior "Permutit"

Designed to fit into the main and soften all the water used in a small home.

The water passing through it has all its lime and magnesia salts (hardness) automatically removed, leaving a water softer than rain water.

When the total quantity of water it can soften has passed through, ordinary salt is placed in the plant by means of the quick opening top and the salt water washed to drain. The plant will then once more soften to its total capacity.

This we call regeneration. It may be done once per week, twice per week or even every day.

Find the hardness of your water from your local dealer or ourselves (London is 16'). Then multiply by forty gallons the number of persons in your home. This will give your daily consumption. Read across the capacity table from your hardness figure and choose the plant you need—

e.g., 2 persons × 40 galls. 80

Suppose your hardness is 16°, then-

J.1 will give you 250 galls, with regeneration every three days.

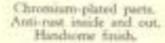
J.2 will give you 500 galls, with regeneration every six days.

J.3 will give you 750 galls, with regeneration every nine days.

### HOW IT LOOKS

This Capacity Table will tell you how much water you will obtain every time you regenerate.

HARDNESS DEGREES ENGLISH	"PERMUTIT" JUNION		
Livering	No. 1	No.2	No. 3
4 5 6 7 8 9	500 806 863 579 500 443 600	2008 1000 1530 1140 1000 890 800	3000 2400 2000 1215 1300 1335 1200
11 12 33 14 13 16 26 29	500 310 310 293 203 230 230 200	T25 963 629 539 539 530 643 660	1890 1800 925 925 963 990 230 665 665
22 24 26 26 28 30	1965 1965 1360 1463 1,360	363 330 300 200 200	345 500 460 430 400
32 34 30 38 49	128 113 110 103 100	230 230 230 210 200	300 300 300 303 300
42 48 46 46 50	95 90 83 82 82 88	196 180 170 163 168	293 229 260 230 240
Discover, inches	-6	Ŧ	





P'x 33"

Fits under dusining board.

8" × 64"

8" × 60"

Fit in any corner.

£784 £1,176 £1,493

# THE NEW"C"TYPE

WITH THIS TRIUMPH OF SCIENTIFIC DESIGN
"PERMUTIT" ENGINEERS HAVE REDUCED THE
CARE OF THE PLANT TO A TURN OF A WHEEL
ONCE A WEEK



### HOW TO CHOOSE THE "C" TYPE FOR YOUR HOME

This "C" type is the "Permutit" plant requiring least attention. It stores its own salt for regeneration, regenerates by the simple turn of a wheel. Has one control—no wearing parts. A child can use it.

Find the hardness of your water supply (London is 16"). If you are on a public supply ask your local dealer or write to us, we will know it. If you have a private well supply we will send you a container for a sample, and analysing it, tell you its hardness free.

Then take the number of persons in your housebold and multiply by 40. This is the usual quantity of water used daily per person. As it is customary to select a plant capable of softening one week's supply, finally multiply by 7. This will give you the sotal number of gallons used per week. Turn to the capacity tables on the next page, and opposite the hardness of your water find the next largest plant capacity:

> e.g., 4 (people) × 40 (galls.) × 7 days -1,120 galls. per week.

Assuming (London water) 16°, you will find a C.12 plant ideal. If your water is 20°, then you will find C.15 best, with its capacity of 1,650 gallons on 20° water.

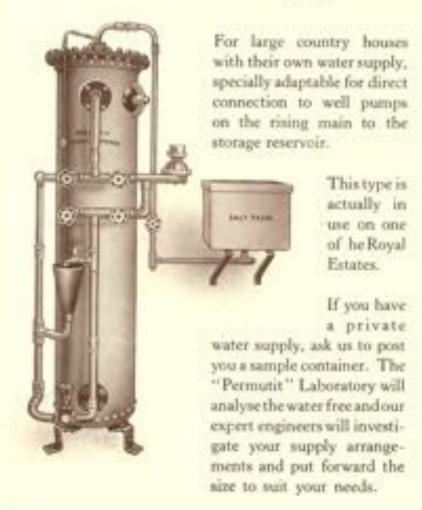
The only attention the plant will require is the weekly regeneration with salt—on the "C" type this is very simple. A charge of salt that will last for two months is placed in the salt vessel and left there. Once a week you give the wheel on the top of the plant one turn, and the plant regenerates itself. If you like to do this twice a week—then divide your weekly capacity in half and find the size that corresponds.

### The "C" type Capacity Table, Specification and Prices

		ONS OF W			BE
Hardwest of ingles	Model				
on degrees	CP-CW9	C12-CW12	CU	CIR	C22
Deposi	Gisline	Galleri	Gafre	Gallere .	Culture
4	3000	3250	:8230	12000	18000
5	.2400	4200	6000	5600	14400
6	2000	3900	5500	9000	12000
2	1715	3000	0179	6860	10,290
	1500	2625	41.25	6006	9000
7	1335	2335	3665	5333	8000
. 10	1200	2500	3,300	4800	7,200
11	1000	3900	3000	4365	6345
12	1000	3550	27.50	4000	6000
2.3	923	3683	2540	3690	5540
34	855	1500	2353	3430	.5145
23	200	1400	2200	3290	4500
26	730	1300	2000	3000	4509
18	063	234.5	1830	200.5	4000
24	603	1650	1630	2400	3500
12	543	985	1500	23 866	3275
34	500	105	1.375	2000	3000
26	460	905	1270	3 845	2779
21	430	250	1100	1313	2570
30	400	200	1100	1600	2400
12	379	635	1030	1.500	2210
34	350	0.03	970	1410	21.20
36	330	383	1920	1.330	2000
38	315	530	870	1265	1895
40:	300	525	625	1,200	2800
42	293	500	295	1145	1713
44	270	475	2.90	1098	9603
46	200	455	213	1040	1365
48	250	435	6000	D000	1300
50	240	420	660	000	1493

	SI	PECIFICA	TIONS F	OR TYPE '	C!	
Audel	depth is wished a legister to residen	HH	Such Such refil	Algebra of regressations per retiti	Aspersonate stopping snight	Prior advanced
29	30×23×53	2"	75-lbs.	- 0	330-Du.	£2,4
32	13×27×53	5.	125-lbs. 200-lbs.	- 0	450.Bu.	£3,5
38	25×35×35	1.	280.lbs.	- 6	700.fbs.	£4,8 £6,7 £9,3
22	-23×47×36	1"	420-lbs	. 9	1650-/ba	£9':

# The "B" Type



# "PRMUTIT" PLANTS

famed the world over for the last quarter of a century—are treating millions of gallons daily for whole townships. Others condition the water supply for great industrial undertakings—ships—railways—factories. TO-DAY by the painstaking research of expert engineers and craftsmen they are simplified beyond resemblance and placed before you in gleaming beauty for the adornment and boon to your home of

### SOFT WATER



#### WATER SOFTENING IS A SCIENCE

For a quarter of a century we have built, studied and serviced "Permutit" Plants. From this unique experience emerges the substantiation of our name, plants, service and recommendations.

"Permutit" plants are built for permanent service from tested materials. It is our pride that they are incomparable in their quality.

WHEN YOU DECIDE TO OBTAIN THE BENISON OF SOFT WATER IN YOUR HOME REMEMBER



#### UNITED WATER SOFTENERS,

EDMITED

British's Largest Specialists in the Monofactors of Water Treating Equipment

ALDWYCH HOUSE, LONDON, W.C. 2

and PERMUTIT HOUSE, LONDON, W. 4



For Approximation to \$1.16, The Size

CHARGE AT WAR DETECT AND SHOULD ASSOCIATED ASSOCIATED AND SHOULD ASSOCIATED ASSOCIATED AND SHOULD ASSOCIATED A

BOPYWORT HIS DATED WATER SOFTINGED, LIMITED, PLRAUTET HOUSE, LONDON, W.A.