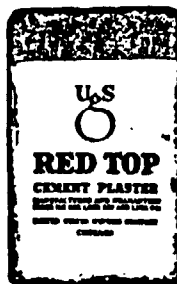


PLAINTIFF'S EXHIBIT

USG-2041

THE RED TOP BAG — WHAT IT REPRESENTS

The Red Top on all USG plaster and plaster finish bags is more than a trade-mark. It is an instant identification that the gypsum plaster in the bag is produced by the Red Top Process that assures uniform easy working qualities, greater coverage and maximum strength. Because of their high quality and sure job performance Red Top Plasters will help you do better work with less labor.



*The standard strong,
fiber U.S.G. bag.*

DISTINCTIVE PACKAGE

Red Top Plasters are packed in paper bags, made of layers of strong kraft paper. Each bag bears the familiar trade mark and has the Red Top so that it is readily distinguished.

We recommend this paper bag as the most satisfactory plaster package, both from an economical and practical viewpoint.

RED TOP CEMENT PLASTER IN RED TOP BAGS

This plaster—supplied either fibered or unfibered—is to be mixed with sand on the job. Manufactured under U. S. Patent Nos. 1,683,539 and 1,989,641, it has advantages that eliminate most of the job troubles you have encountered with ordinary plasters.

ADVANTAGES

1. It sets the same whether sanded 1 to 1 or 3 to 1.
2. It sets the same with clean or dirty sand.
3. It sets the same with fine or coarse sand within the limits of A.S.T.M. specifications for size of sand.
4. It sets the same with clean or dirty water.
5. It sets from the lath out, instead of from the surface in. This gives more time to straighten, darby, trowel or float.

6. It sets evenly, and, once it has started, sets quickly. It does not set up spotted and uneven.
7. It eliminates dry-outs.
8. It eliminates differences in setting time caused by hot or cold weather.
9. It has an unusual richness and slip which give easy mixing, far spreading qualities, resulting in a maximum coverage with minimum labor.
10. It retains its plasticity and working qualities for at least a year.

COVERAGE

Under average conditions Gypsum Cement Plaster when mixed and applied in accordance with standard conditions will cover about as follows:

Plastering Base	Wood Lath	Metal Lath	Gypsum Lath	Brick and Clay Tile	Gypsum Tile
Sq. Yds. Per Ton	180-210 (Sanded 2 to 1)	105-135 (Sanded 2 to 1)	225-240 (Sanded 2 to 1)	165-200 (Sanded 3 to 1)	235-255 (Sanded 3 to 1)

RED TOP ELDORADO CEMENT PLASTER IN RED TOP BAGS

This is a gypsite (or dark) plaster supplied either fibered or unfibered and to be mixed with sand on the job. It is manufactured under rigid manufacturing control and has excellent spreading and working qualities. Coverage is the same as for Red Top Cement Plaster.

RED TOP WOOD FIBER PLASTER IN RED TOP BAGS

Only mixing with water is required to render this popular plaster ready for use. Finely shredded wood fibers, mixed in at the factory, give to this plaster extraordinary strength and fire resistance. The plaster works very "fat," but is not sticky. Its use does away with the handling of sand and with all sand troubles.

Brands: Red Top; Red Top ELDORADO, the latter being a Gypsite (or dark) plaster.

Coverage—Under average conditions Gypsum Wood Fiber Plaster when mixed and applied in accordance with standard conditions will cover about as follows:

Plastering Base	Wood Lath	Metal Lath	Gypsum Lath
Sq. Yds. Per Ton	90-100 (UnsanDED)	55-65 (UnsanDED)	115-120 (UnsanDED)

RED TOP BONDCRETE PLASTER IN RED TOP BAGS

This plaster is recommended for plastering concrete surfaces. It has extraordinary adhesiveness, works well under the tools, and requires only the addition of water to prepare it for use.

U S G GAUGING PLASTERS

Red Top Gauging Plasters are made of selected gypsum. They are specially processed and ground to just the right fineness to insure rapid mixing with the lime putty and easy-working qualities. (Red Top Hydrated Lime is recommended). You can have Red Top Gauging Plasters in white or gray, quick set or slow set.

In addition to being shipped in Red Top bags, the material may also be had in 250-lb. (230-lbs. net weight) barrels and in 320-lb. (300-lbs. net weight) barrels.

Slow Set Brands: Red Top Gauging Plaster; Red Top Star (pure white); Red Top Superfine Finishing Plaster (pure white). Quick Set Brands: Red Top Gauging Plaster; Red Top Champion (pure white); Red Top Kings Diamond (pure white).

Coverage—Under average conditions one ton of Gauging Plaster when mixed one part of dry gauging to two parts of dry hydrated lime by weight, will cover about 1000 to 1400 square yards.

RED TOP PREPARED FINISHES IN RED TOP BAGS

PREPARED GYPSUM TROWEL FINISHES. These finishes are ready to use when mixed with water and set hard in a few hours. When applied as specified, a ton should cover about 350 to 400 sq. yds.

Brands: Red Top Trowel Finish; Red Top Universal White Trowel Finish; Red Top Universal Gray Trowel Finish; Red Top Adamant White Trowel Finish; Red Top Adamant Gray Trowel Finish; Red Top Adamant Slate Colored Trowel Finish; Red Top Adamant XXX Trowel Finish; Red Top Badger Trowel Finish.

PREPARED SAND FLOAT FINISHES. These are high-grade float finishes, mixed at the mill with just the proper proportion of selected sand. A ton should cover 250 to 275 sq. yds.

Brands: Red Top White Silica Sand Float Finish; Red Top Gray Silica Sand Float Finish; Red Top Adamant White Sand Float Finish; Red Top Adamant Gray Sand Float Finish.

RED TOP MOULDING PLASTER IN RED TOP BAGS

Artificial aging by the patented Aridize process lowers the water-carrying capacity of this Moulding Plaster, resulting in longer-lived casts and moulds. Red Top Moulding Plaster is extremely fine ground, cool-working, and uniform in time of set. Packed in Red Top bags; also in 250-lb. (230-lb. net weight) barrels and in 320-lb. (300-lb. net weight) barrels.

Brands: Red Top Moulding Plaster; Red Top No. 1 Moulding Plaster (white).

RED TOP KEENE'S CEMENT

Red Top Keene's Cement is of exceptionally fine quality. It is made of specially selected gypsum, mined at Southard, Oklahoma. It has a tensile strength of over 450 lbs. per sq. in., is brilliantly white, uniform, and free from gas voids.

Made in four types: Red Top Keene's Cement for general purposes; Red Top Quick Troweling Keene's; Red Top Casting Keene's; and Red Top Scagliola Keene's.

Coverage—For a hard finish, 400 lbs. of Red Top Keene's Cement mixed with 100 lbs. of Lime Putty should cover 100 square yards.

RED TOP FINISHING LIMES

These limes are specially prepared for finishing purposes. They are rich, uniform, and farspreading—positively unexcelled in quality.

Quick Finishing Limes must be slacked by mixing with water and screened, then properly aged before using.

Hydrated Finishing Limes are scientifically slaked at the manufacturing plant where positive control of water and other conditions are assured. They save time and labor on the job and do not require extensive storage space for aging. They are ready to use after soaking.

USG Limes are produced at strategic points for prompt shipment to the large building centers. The brands produced at these mills are as follows:

Genoa, Ohio. These finishing limes are uniformly burned from Ohio dolomite which produces the highest grade of finishing lime. They are thoroughly hydrated and snowy white in color.

Brands: Red Top Hydrated Finishing Lime; Red Top Ivory Hydrated Finishing Lime; Red Top Grand Prize Hydrated Finishing Lime: Supplied in 50 lb. paper bags.

Farnams, Massachusetts. These Limes are burned from selected high calcium rock and give a high putty yield.

Brands: Cheshire Hydrated Finishing Lime, in 50 lb. paper bags; Cheshire Quick Finishing Lime (lump, pulverized and superfine), in 50 lb. paper bags—180 lb. or 280 lb. wood barrels or steel drums—or bulk; Berkshire Hills Quick Finishing Lime (pulverized and Fine Grained), in 80 lb. paper bags—180 lb. and 280 lb. wood barrels or steel drums—or bulk.

New Braunfels, Texas. This plant manufactures a high calcium Hydrated Finishing Lime under a special process that produces a quick-soaking hydrate, snowy white in color, high in plasticity and with easy working qualities.

Brand: Dittlinger's Plastimax. Supplied in 40 lb., triple-walled paper bags.

Coverage: Under average conditions one ton of Hydrated Lime when used in proportions of two parts of dry lime to one part of dry gauging plaster by weight (3000 lbs. of finish) should cover about 500 to 700 square yards.

One ton of Quick Lime when mixed 3 parts lime putty to one part dry gauging plaster by measure should finish 1000 square yards.

ORIENTAL INTERIOR COLORED FINISH PLASTER

With this material the plasterer can produce walls and ceilings in beautiful textures and colors. Mixture with water prepares this material for use.

Oriental Interior Finish comes in thirteen standard tints and white. We use only the finest mineral colors, which are thoroughly blended by machine mixers. This assures a uniform, easy-working quality unobtainable in a job-mixed material. Shipped in 100-lb. paper bags.

Coverage—About 250 to 300 yards per ton, varying according to the character of the texture.

ORIENTAL EXTERIOR STUCCO BASE COAT AND COLORED FINISH

Oriental Stucco is enduring—because the formula is scientifically correct. Base coat and finish need only to be mixed with water at the job.

Oriental Base Coat contains the proper proportions of carefully selected, uniformly graded sand. There is consequently no danger of oversanding or insufficient mixing, time and labor is saved, and a base of uniform strength and color is assured.

Oriental Stucco Finish is furnished in eleven standard colors and white. All materials, including color, are mixed in by machine at the mill; assuring a uniform color and a correct mix. The remarkable plasticity of this finish offers unlimited texturing possibilities.

Coverage of Oriental Exterior Stucco Base Coat (scratch and brown coats) on the basis of the average job, is approximately as follows:

Plastering Surface	Brick and Clay Tile	Metal Lath	Wire Fabric	Cement and Cin- der Tile	Concrete
Sq. Yds. Per Ton	20 to 25	25 to 30	22 to 28	20 to 22	20 to 25

Coverage of Finish Coat—One ton applied not to exceed $\frac{1}{4}$ in. in thickness will cover from 150 to 200 square yards, depending on the texture used.

SABINITE ACOUSTICAL PLASTER

An effective acoustical corrective and a permanent plaster finish are combined in this remarkable material, in which myriads of tiny passages absorb sound and stop echoes. In addition to correcting acoustics in churches, theaters and auditoriums, Sabinite quiets hospital rooms, offices, etc. It is much more economical than deadening felts or drapes. The improved formula is very easy working.

TYPES

Sabinite A—For general use on ceilings or above wainscots.

Sabinite B—For troweling to a smooth hard surface, readily cleanable on wainscots or wall surfaces exposed to abrasion.

Sabinite 38—Specially developed to resist moisture in natatoriums, shower rooms, laundries, etc.

COLORS

Both Sabinite A, B and No. 38 are furnished in white and four standard colors or tints: ecru, ivory, cream, buff. Special colors will be furnished on orders exceeding 5 tons. On small orders where special colors are required Sabinite may be integrally tinted on the job.

COVERING CAPACITY

One ton of Sabinite A or B applied in two coats, each $\frac{1}{4}$ -in. thick, will cover from 100 to 110 square yards. The average plasterer can apply 100 square yards of Sabinite A to full specifications in 11 hours.

To mix this material, including delivery to the mechanic, requires but 7 hours of labor.

A ton of Sabinite No. 38 covers from 60 to 75 yards and requires 14 hours of a plasterer's time and 8 hours of mixing labor per 100 square yards.

ROCKLATH—The Fireproof Lath

Rocklath is a solid sheet of gypsum encased in a tough fiber covering, in conveniently sized sheets, forming a strong, fireproof plaster base to which gypsum plaster bonds securely. It does not swell or buckle. It is quickly nailed to wood studding, furring or joists and provides a smooth even surface for quick and easy plastering. Requires no wetting and keeps moisture from frame.

ROCKLATH INSULATING LATH has a thin, smooth, bright sheet of aluminum foil mounted on the back of each board. This foil acts as a heat reflector and gives to Rocklath an insulation value equal to $\frac{1}{2}$ inch of fiber insulation board.

PERFORATED ROCKLATH has $\frac{3}{4}$ -inch perforations spaced 4 inches apart. These give an additional mechanical key to the plaster, assuring greater crack resistance and fire protection.

Rocklath is furnished in sheets 16x32 in. and 16x48 in., $\frac{3}{8}$ in. thick. Packed 6 sheets per bundle with RED label on sides.

RED TOP METAL LATH AND ACCESSORIES

The Red Top Line of Metal Lath and Lathing Accessory products is complete, of high quality and designed for modern building needs.

RED TOP SMALL DIAMOND MESH LATH: An economical, efficient plaster base for all types of plain or ornamental plastering. Rigid. Easy to erect. Quick coverage. Perfect keying qualities. Available in all standard materials, weights and sizes.

RED TOP $\frac{1}{8}$ IN. Z-RIB LATH: A flat rib lath that prevents plaster waste. Smooth and rigid. Mesh is the right size for economy. Available in all standard materials, weights and sizes.

RED TOP $\frac{3}{8}$ IN. RIB LATH: Easy to handle and erect for ceilings, partitions and floors. Has unusual rigidity. Outside ribs nest or lap with a minimum of waste. Available in all standard materials, weights and sizes.

RED TOP METAL ARCHES: These ready formed arches combine in a unit the plastering base, plaster ground and corner bead. They provide true, symmetrical arched openings—quickly and economically. Made for 2x4 in. studs or bucks in six standard sizes for openings up to 72 in.

Manufactured under license of Merryweather Patent No. 1782147 granted November 18, 1930.



RED TOP LATHING ACCESSORIES: Our complete line includes Corner Beads of all types, Channels, Furring Brackets, Metal Arches, Corner and Strip Lath, Screeds, Rods, Wire, etc.

WEATHERWOOD INSULATING LATH

Builders today are demanding insulation. **WEATHERWOOD** Insulating Lath, made of Southern hard wood or Northern white fibered wood by an improved process, has maximum insulation, is strong, and presents a uniform plastering surface.

Because of its light weight, Red Top Insulating Lath is very quickly handled and applied. Tests show that gypsum plaster bonds twice as firmly with this lath as with ordinary lath.

An exclusive feature is the tight fitting edge, which assures strong joints and true, even wall surfaces.

Each sheet is 18 in. wide, 48 in. long, and $\frac{1}{2}$ in., $\frac{3}{4}$ in. or 1 in. thick. Twelve $\frac{1}{2}$ in. or six 1 in. laths to the bundle.

REINFORCED INSULATING LATH

This is Weatherwood Insulating Lath having a wire fabric attached to one of the 48 in. edges and arranged so the reinforcement can be slid into place over the joint after the lath is applied without any further nailing.

U S G RESILIENT PLASTERING SYSTEM

In this system Rocklath is attached to the wood studs or joists or metal channels by means of a spring clip, the Rocklath being then plastered in the regular way. The system has three important advantages:

First, cracking is reduced to a minimum, because certain movement can take place in the building without being transmitted to the "floating" wall or ceiling. Second, the "floating" construction is very effective in preventing the passage of sound. Third, since the ceiling is of even density, lath-marks are eliminated.

As this system can be erected as rapidly as regular Rocklath and plaster, the only extra cost is the cost of the resilient clips.

HOW TO AVOID PLASTER TROUBLE

These directions apply to all Gypsum Cement Plasters, Wood Fiber Plasters, and Finishes. Their observance is just as important in securing first-class results and in making the mechanic's work easy as are the specifications themselves. Read the following eight simple, common-sense rules which will enable you to avoid trouble and get best possible results from your plaster.

Rule 1.—Keep Moisture From Plaster Before Mixing—Moisture causes plaster to set. Therefore, plaster should be stored in a dry place, and circulation of air through the ware-

house should be prevented. Do not pile plaster out-of-doors or on the bare ground or next to green walls. Do not allow plaster to stand dry-mixed with sand.

Rule 2.—Have Lath Conditions Right—Lath should be of good grade and should be properly spaced and nailed. Look out for dry lath. Wood lath are bound to swell when wet and if not swelled before plastering, they are likely to swell and buckle afterwards. Therefore, wet the lath. It is better to do it the day before and again about one hour before plastering. It is especially important to wet wood lath over doors and windows where the walls dry out very rapidly.

NOTE—The best way to avoid lath troubles is to use Red Top Rocklath, the fireproof plaster base. You do not have to soak Rocklath, and it makes a solid, dense, wall that can never buckle. Brick walls have great suction; sprinkle them well before plastering.

Rule 3.—Water Quality—Clean water is desirable where obtainable for all plastering. The set of U S G cement plaster is practically independent of water quality. Finishes, however, may be stained if the gauging water contains soluble impurities.

Rule 4.—Sand Quality—Sand meeting the requirements of A.S.T.M. for fineness is desirable. The setting time of U S G cement plasters is practically independent of sand quality. Sand should be free from frost.

Rule 5.—Keep Set-Up Plaster Out of the Mix—Set plaster causes quick-set. Clean the mortar box and tools after each gauging. Do not wash tools in the gauging water. Do not mix one gauging with another. Do not retemper plaster after it has commenced to set. Throw it away—it is time and money saved.

Rule 6.—Mix Material as Needed—Apply mortar immediately after mixing and do not mix more material than can be handled in about one hour.

Rule 7.—Mixing Methods—The maximum strength and uniformity of sand and plaster mixtures depends on getting a perfect mix on the job. Uneven distribution of sand in plaster may result in weak oversanded spots due to incorrect mixing practice. Mixing should be continued until sand and plaster are thoroughly incorporated. Machine mixers should be kept clean and free from set plaster.

Rule 8.—Keep Green Walls From Freezing Until Set Hard—Frost will not injure plaster after setting occurs, and walls may be allowed to freeze dry. Whenever there is likelihood of frost in basecoat plasters, they should be warmed and dried thoroughly before finishing.

DRYOUTS

"Dryouts" occur when plaster coats dry before the plaster sets. U S G cement plaster, with ordinary protection from too rapid

drying, is practically proof against this condition, under wide variations in sanding conditions.

Where dryout occurs, it is indicated by soft, weak, chalky areas in the plaster. It is corrected by spraying the area affected with water to dampen it thoroughly, then keeping the wall damp until plaster sets. Dried out plaster retains its setting properties, and need never be removed unless buckling of wood lath has caused failure of keys.

Where rapid correction of dryouts is required, the surface may be wetted with a solution, made up by dissolving 6 ounces of zinc sulphate or alum in 12 quarts of water. Wet the area involved evenly, with this solution, then dampen thoroughly with spray or brush.

SWEAT-OUTS

Cause—A "sweat-out" is the opposite condition to a dry-out. Walls in this condition are set but the water in excess of the amount needed to cause crystallization has not been expelled, thus causing a partial re-dissolving of the gypsum. Sweat-outs are more likely to be encountered in winter than in summer.

How to Detect—This condition will be recognized when walls remain damp. Instead of being white and chalky, as in the case of a dry-out, the walls are dark in color and soft, and if the condition is permitted to continue uncorrected, the walls will have a damp, musty odor.

How to Prevent—It is important to dry out the walls as quickly as possible after they are set. Plaster which has set but still remains damp over an extended period of time loses its strength and may result in a total loss. However, when a sweat-out condition is detected, immediate provision for proper heat and ventilation will preserve the remaining strength of the plaster.

If, after the walls are set, doors and windows are opened to permit a free circulation of air, and if in extremely cold weather proper artificial heat be also introduced into the building, together with proper ventilation, there will be no danger of sweat-outs.

Remedy—After the plaster has set, open up doors and windows. In very cold weather also use artificial heat to dry out the walls.

FROZEN PLASTER

Cause—Walls freezing before they are set.

How to Detect—If the temperature inside the building was at a freezing point before the plaster set, and if the walls remain damp and dark in color, the plaster is probably frozen.

How to Prevent—In order to prevent freezing before the plaster has set, use artificial heat in the building with good ventilation. Frost will not injure plaster which has set if no excess moisture is present.

Remedy—Keep the building closed. Provide artificial heat and completely thaw out walls. When plaster has thawed and set, provide ventilation and heat to remove moisture and prevent a sweat-out.

Never apply a finish coat over a base coat containing frost.

TOO SLOW SETTING

Cause—The setting time of U S G cement plaster is adjusted to meet the requirements of the locality into which it is shipped. If, because of special conditions this setting time is too slow, it may be adjusted and dealer should be notified so that this adjustment can be made.

How to Detect—When plaster fails to set in a reasonable time after mixing (1½ to 6 hours, depending on locality) it is slow setting. U S G cement plasters set from the lath out, the surface setting evenly and uniformly, so that surface is last to harden. Surface softness, therefore, should not be confused with slow setting.

Before definitely concluding that a plaster is slow setting, it is well to make a simple test as follows: mix dry a sample of sanded plaster on a clean hawk or mortar board. Put about a pint (two tumblerfuls) of the mixture in the center of the hawk or mortar board. Now, with the handle of a pointing trowel make a hole in the center of the dry-mixed material and work it into a ring about 5 to 8 in. in diameter. Into this ring, pour clean water, then fold the plaster into the water slowly and mix thoroughly. Place the mixture on a well cleaned wet board, or better still, on a piece of glass, or the bottom of an old plate or saucer. Take the time of set. The time will vary from an hour and a half in some parts of the South, to four hours or more in other sections.

Remedies—Below are listed five things which may be done to make plaster set more quickly. None of these remedies will have any injurious effect on the plaster.

- (1) Send to the United States Gypsum Company for U S G Accelerator. Add 4 to 6 oz. (about a handful) to each sack of plaster.
- (2) Crush some plaster droppings, screen through a fly screen, and use about a quart of this set plaster to each sack of plaster.
- (3) Add about a quart of hydrated lime to each sack.
- (4) Add about a quart of Portland cement to each sack. Caution. The use of lime or Portland cement to accelerate the set is not recommended over Rocklath, Insulating Lath, or any sheet type of lath.
- (5) Put 15 lbs. of any kind of unretarded plaster (plaster of paris, moulding plaster, etc.) into a barrel of water about one hour before it is desired to mix the plaster. Use this water, thoroughly stirred, for mixing.

TOO QUICK SET

Causes—The setting time of U S G cement plaster is adjusted to meet the requirements of the locality into which it is shipped, and is practically independent of water supply and sand quality. Quick set may be due to: (1) Use of water in which tools have been washed or mixing; (2) Presence of set plaster in the mix; (3) Mixing more material than will be used up in an hour.

How to Detect—Material which sets in the box or the mixer, or hardens on the wall before it can be straightened, is quick set. If there is any doubt as to the condition, mix a little as described under—"Too Slow Set—How to Detect."

How to Prevent—Most quick-set troubles can be prevented by correcting local conditions described under "Causes of Quick Set."

Remedies—Correct local conditions. See that tools and mixing box are free from set plaster. See that mixing water does not contain set plaster. Do not permit plaster and sand to stand dry mixed before adding the water. Do not mix more material than can be used up in an hour.

If an investigation of local conditions does not suggest a remedy, obtain from the United States Gypsum Company some U S G Retarder. Use this by stirring up the desired amount in a pail containing part of the mixing water, to get a good solution free from lumps. Start with a fair handful (1 to 2 ounces) per bag increasing or decreasing the amount as necessary to obtain desired setting time.

If there is not time to procure U S G Retarder the set may be retarded by the addition of glue water. Pulverized glue in the proportions of 1 lb. of glue to 5 gallons of water should be mixed, and about a quart pail full of this solution used with the gauging water for each 100-lb. sack of plaster. U S G Retarder is much better than glue.

NOTE: The use of such retarders as cream of tartar or tartaric acid is not recommended either for base or finish coat plasters.

AUTOMATIC WALL MEASURE- MENT TABLES

By the wall measurement tables which follow, you can instantly compute the correct number of yards in any size room.

HOW TO USE THE TABLES

Example: To obtain the number of square yards in a room 15x15x9. Turn to the table giving the measurement of rooms with 9-foot ceilings; follow down the column of figures on the left until you come to 15, then follow the figures to the right until you come to the figures directly under the figure 15, at the top of the page; the answer is 85 square yards. When the half-foot comes in the dimensions of a room, both ways, take the next largest number on one side. When it comes on one side only add one yard and it will be close.

NUMBER OF SQUARE YARDS AND FEET IN ROOMS WITH 7-FOOT CEILINGS	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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The amount indicated includes side walls and ceilings.

NUMBER OF SQUARE YARDS AND FEET IN ROOMS WITH 7-6 FOOT CEILINGS

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3	11.0	13.0	15.0	17.0	19.0	21.0	23.0	25.0	27.0	29.0	31.0	33.0	35.0	37.0	39.0	41.0	43.0	45.0	47.0	49.0
4	13.0	15.1	17.2	19.3	21.4	23.5	25.6	27.7	29.8	32.0	34.1	36.2	38.3	40.4	42.5	44.6	46.7	48.8	51.0	53.1
5	15.0	17.2	19.4	21.6	23.8	26.1	28.3	30.5	32.7	35.0	37.2	39.4	41.6	43.8	46.1	48.3	50.5	52.7	55.0	57.2
6	17.0	19.3	21.6	24.0	26.3	28.6	31.0	33.3	35.6	38.0	40.3	42.6	45.0	47.3	49.6	52.0	54.3	56.6	59.0	61.3
7	19.0	21.4	23.8	26.3	28.7	31.2	33.6	36.1	38.5	41.0	43.4	45.8	48.3	50.7	53.2	55.6	58.1	60.5	63.0	65.4
8	21.0	23.5	26.1	28.6	31.2	33.7	36.3	38.8	41.4	44.0	46.5	49.1	51.6	54.2	56.7	59.3	61.8	64.4	67.0	69.5
9	23.0	25.6	28.3	31.0	33.6	36.3	39.0	41.6	44.3	47.0	49.6	52.3	55.0	57.6	60.3	63.0	65.6	68.3	71.0	73.6
10	25.0	27.7	30.5	33.3	36.1	38.8	41.6	44.4	47.2	50.0	52.7	55.5	58.3	61.1	63.8	66.6	69.4	72.2	75.0	77.7
11	27.0	29.8	32.7	35.6	38.5	41.4	44.3	47.2	50.1	53.0	55.8	58.7	61.6	64.5	67.4	70.3	73.2	76.1	79.0	81.8
12	29.0	32.0	35.0	38.0	41.0	44.0	47.0	50.0	53.0	56.0	59.0	62.0	65.0	68.0	71.0	74.0	77.0	80.0	83.0	86.0
13	31.0	34.1	37.2	40.3	43.4	46.5	49.6	52.7	55.8	59.0	62.1	65.2	68.3	71.4	74.5	77.6	80.7	83.8	87.0	90.1
14	33.0	36.2	39.4	42.6	45.8	49.1	52.3	55.5	58.7	62.0	65.2	68.4	71.6	74.8	78.1	81.3	84.5	87.7	91.0	94.2
15	35.0	38.3	41.6	45.0	48.3	51.6	55.0	58.3	61.6	65.0	68.3	71.6	75.0	78.3	81.6	85.0	88.3	91.6	95.0	98.3
16	37.0	40.4	43.8	47.3	50.7	54.2	57.6	61.1	64.5	68.0	71.4	74.8	78.3	81.7	85.2	88.6	92.1	95.5	99.0	102.4
17	39.0	42.5	46.1	49.6	53.2	56.7	60.3	63.8	67.4	71.0	74.5	78.1	81.6	85.2	88.7	92.3	95.8	99.4	103.0	106.5
18	41.0	44.6	48.3	52.0	55.6	59.3	63.0	66.6	70.3	74.0	77.6	81.3	85.0	88.6	92.3	96.0	99.6	103.3	107.0	110.6
19	43.0	46.7	50.5	54.3	58.1	61.8	65.6	69.4	73.2	77.0	80.7	84.5	88.3	92.1	95.8	99.6	103.4	107.2	111.0	114.7
20	45.0	48.8	52.7	56.6	60.5	64.4	68.3	72.2	76.1	80.0	83.8	87.7	91.6	95.5	99.4	103.3	107.2	111.1	115.0	118.8
21	47.0	51.0	55.0	59.0	63.0	67.0	71.0	75.0	79.0	83.0	87.0	91.0	95.0	99.0	103.0	107.0	111.0	115.0	119.0	123.0
22	49.0	53.1	57.2	61.3	65.4	69.5	73.6	77.7	81.8	86.0	90.1	94.2	98.3	102.4	106.5	110.6	114.7	118.8	123.0	127.0
23	51.0	55.2	59.4	63.6	67.8	72.1	76.3	80.5	84.7	89.0	93.2	97.4	101.6	105.8	110.1	114.3	118.5	122.7	127.0	131.2
24	53.0	57.3	61.6	66.0	70.3	74.6	79.0	83.3	87.6	92.0	96.3	100.6	105.0	109.3	113.6	118.0	122.3	126.6	131.0	135.3

The amount indicated includes side walls and ceilings.

NUMBER OF SQUARE YARDS AND FEET IN ROOMS WITH 8-FOOT CEILINGS

	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
3	11.6	13.7	15.8	18.0	20.1	22.2	24.3	26.4	28.5	30.6	32.7	34.8	37.0	39.1	41.2	43.3	45.4	47.5	49.6	51.7
4	13.7	16.0	18.2	20.4	22.6	24.8	27.1	29.3	31.5	33.7	36.0	38.2	40.4	42.6	44.8	47.1	49.3	51.5	53.7	56.0
5	15.8	18.2	20.5	22.8	25.2	27.5	29.8	32.2	34.5	36.8	39.2	41.5	43.8	46.2	48.5	50.8	53.2	55.5	57.8	60.2
6	18.0	20.4	22.8	25.3	27.7	30.2	32.6	35.1	37.5	40.0	42.4	44.8	47.3	49.7	52.2	54.6	57.1	59.5	62.0	64.4
7	20.1	22.6	25.2	27.7	30.3	32.8	35.4	38.0	40.5	43.1	45.6	48.2	50.7	53.3	55.8	58.4	61.0	63.5	66.1	68.6
8	22.2	24.8	27.5	30.2	32.8	35.5	38.2	40.8	43.5	46.2	48.8	51.5	54.2	56.8	59.5	62.2	64.8	67.5	70.2	72.8
9	24.3	27.1	29.8	32.6	35.4	38.2	41.0	43.7	46.5	49.3	52.1	54.8	57.6	60.4	63.2	66.0	68.7	71.5	74.3	77.1
10	26.4	29.3	32.2	35.1	38.0	40.8	43.7	46.6	49.5	52.4	55.3	58.2	61.1	64.0	66.8	69.7	72.6	75.5	78.4	81.3
11	28.5	31.5	34.5	37.5	40.5	43.5	46.5	49.5	52.5	55.5	58.5	61.5	64.5	67.5	70.5	73.5	76.5	79.5	82.5	85.5
12	30.6	33.7	36.8	40.0	43.1	46.2	49.3	52.4	55.5	58.6	61.7	64.8	68.0	71.1	74.2	77.3	80.4	83.5	86.6	89.7
13	32.7	36.0	39.2	42.4	45.6	48.8	52.1	55.3	58.5	61.7	65.0	68.2	71.4	74.6	77.8	81.1	84.3	87.5	90.7	94.0
14	34.8	38.2	41.5	44.8	48.2	51.5	54.8	58.2	61.5	64.8	68.2	71.5	74.8	78.2	81.5	84.8	88.2	91.5	94.8	98.2
15	37.0	40.4	43.8	47.3	50.7	54.2	57.6	61.1	64.5	68.0	71.4	74.8	78.3	81.7	85.2	88.6	92.1	95.5	99.0	102.4
16	39.1	42.6	46.2	49.7	53.3	56.8	60.4	64.0	67.5	71.1	74.6	78.2	81.7	85.3	88.8	92.4	96.0	99.5	103.1	106.6
17	41.2	44.8	48.5	52.2	55.8	59.5	63.2	66.8	70.5	74.2	77.8	81.5	85.2	88.8	92.5	96.2	99.8	103.5	107.2	110.8
18	43.3	47.1	50.8	54.6	58.4	62.2	66.0	69.7	73.5	77.3	81.1	84.8	88.6	92.4	96.2	100.0	103.7	107.5	111.3	115.1
19	45.4	49.3	53.2	57.1	61.0	64.8	68.7	72.6	76.5	80.4	84.3	88.2	92.1	96.0	99.8	103.7	107.6	111.5	115.4	119.3
20	47.5	51.5	55.5	59.5	63.5	67.5	71.5	75.5	79.5	83.5	87.5	91.5	95.5	99.5	103.5	107.5	111.5	115.5	119.5	123.5
21	49.6	53.7	57.8	62.0	66.1	70.2	74.3	78.4	82.5	86.6	90.7	94.8	99.0	103.1	107.2	111.3	115.4	119.5	123.6	127.7
22	51.7	56.0	60.2	64.4	68.6	72.8	77.1	81.3	85.5	89.7	94.0	98.2	102.4	106.6	110.8	115.1	119.3	123.5	127.7	132.0
23	53.8	58.2	62.5	66.8	71.2	75.5	79.8	84.2	88.5	92.8	97.2	101.5	105.8	110.2	114.5	118.8	123.2	127.5	131.8	136.2
24	56.0	60.4	64.8	69.3	73.7	78.2	82.6	87.1	91.5	96.0	100.4	104.8	109.3	113.7	118.2	122.6	127.1	131.5	136.0	140.4

The amount indicated includes side walls and ceilings.