# BUNGALOW WITH RUSTIC EFFECT

## Construction Makes for Comfort in Either Hot or Cold Weather.

## SPLENDID CELLAR A FEATURE

**May Be Built to Suit Local Conditions, but Main Principles in Its Arrangement Should Be Preserved—Living Room an Important Feature.**

By WILLIAM A. RADFORD.

Mr. William A. Radford will answer questions and give advice FREE OF COST on all subjects pertaining to the subject of building, for the readers of this paper. On account of his wide experience as Editor, Author and Manufacturer, he is, without doubt, the highest authority on all these subjects. Address all inquiries to William A. Radford, No. 1827 Prairie avenue, Chicago, Ill., and only enclose two-cent stamp for reply.

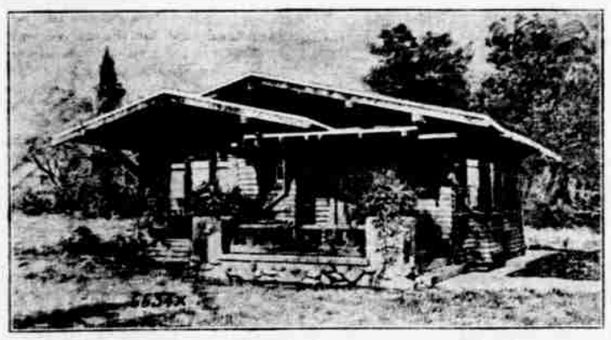
The little bungalow in the picture has a rustic porch built with cobble stones and cement mortar. The floor of the porch and the steps leading up to it are smooth concrete with waterproof finish, the same as the walk leading in from the street. But a rustic effect is given by the front porch wall and the two solid square buttresses at the corners.

The porch is roofed by two overhanging projections that are supported by brackets. The size of the porch is 10 by 16 feet 6 inches, which is quite liberal, even for a bungalow porch. It makes room for considerable comfort, which is utilized by providing seats, easy chairs, etc., for use in summer time.

There is a good cellar the full size of the bungalow, which is divided into compartments by cross walls. The laundry is under the dining room because of the rear outside entrance to the cellar at the side of the back porch, also the ground slopes away at this corner, so that deeper windows are used.

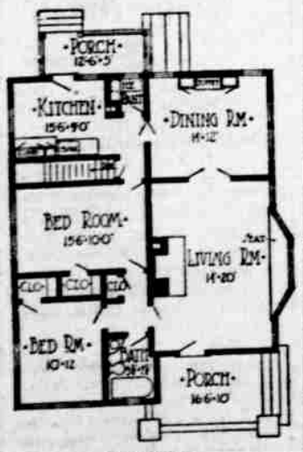
The main part of the cellar is well underground, because the bungalow was designed for a northern city. Local conditions would naturally make a difference in building the cellar, but to retain the real bungalow effect the ground should be graded up in front to almost meet the clapboards, as shown in the drawing.

The materials for the cellar wall



may be whatever happens to be the cheapest or best in the locality where the building is built. Concrete gives universal satisfaction, but there are places where stone walls or hard-burned brick walls are used instead, because the necessary materials are cheaper or more easily obtained.

The woodwork construction commences two or three feet below the main floor so that the siding is continued down to a level with the top of the cellar wall. This is done in some instances to save expense of wall, but the main object is to hold the building down close to the ground to retain the beautiful, artistic effect of the




Floor Plan.

best bungalow construction. But the main floor is set up to give plenty of head room in the cellar and to raise the living rooms well above ground.

A bungalow requires a wide front door; nothing less than three feet will answer, and wider is better. Bungalows are built on the wide plan, so that it becomes necessary to maintain width in all details all the way through from the width of the lot and roof to the width of doors and windows.

The general plan provides for living room, dining room and kitchen, so arranged as to open one into another. Separate from these are two bedrooms, a very small hall, and a bathroom.

The most important feature of the floor plan is the large living room, 14 by 20 feet, together with its large bay window and magnificent fireplace. A built-in seat is planned for the window directly in front of the fire.

The dining room is 14 by 12 feet in size with a double window and two single windows for light. Between the two single windows is a built-in combination sideboard and buffet. The woodwork of both these rooms is designed to match.

There is a heavy baseboard, a crown molding which joints the walls and ceilings of each room, and a plate rail in the dining room, all built to match in one general design. The plate rail is a continuation of the cornice at the top of the sideboard. The dining room walls are laid off in panels separated by stiles made to match the moldings.

The woodwork in the two rooms helps very much both in decorating and in the furnishing, by adopting the built-in furniture idea that has been so elaborately worked out by architects. In this way furniture fits a house because it grows in place as it is being built. Designs usually are cut out by machinery in factories and shipped in the knockdown, so that carpenters put the different parts together across the ends or in the corners of rooms where they are meant to go.

The kitchen is a model of neatness and perfection in arrangement when taken together with the pantry, the ice box and the rear porch.

A wall space at the side of the cellar stairway gives the proper backing for the sink and kitchen cupboard, with its work-table top, which is next to the large window where there is plenty of light. A great deal depends on the laying out of details to make kitchen work easy and attractive. Dark kitchens are not tolerated in these days of white enamel and plenty of daylight.

This bungalow kitchen is as carefully arranged and as thoroughly well built as any other room in the house, and it is about as attractive, especially at meal time.

Besides other kitchen conveniences there is a stairway to the cellar that is wide enough for shelves to hold jars of fruit and other eatables that may be easily reached without going into the cellar. The cellar stairway door, like other kitchen details, is planned to open the right way for convenience.

A cellar in connection with a bungalow is of more importance than a house cellar. In the first place it is larger, so that it may be partitioned into rooms for different purposes. Bungalows are not so roomy as two-story houses, so that cellar room is better appreciated.

This cellar is divided into cold storage room, laundry and furnace room and bins for the storage of coal. Modern housekeeping requirements demand conveniences for doing the necessary work as well as in providing supplies for future use.

The construction materials selected for a house like this depend somewhat on the climate. But on general principles, the building should be thoroughly well built. Well-built walls, ceilings and floors are warm in winter and cool in summer.

The specifications for this bungalow call for sheathing boards and building paper under the clapboards or other outside finish. The sheathing boards are of good quality, well seasoned, to prevent shrinkage. Then a good grade of building paper is used. Such a house is comfortable in cold weather or hot weather. A well-made house wall is a protection against heat and cold.

### Man to Whom World Owes Much.

Charles Martin Hall died at Daytona, Fla., the other day. His name will soon be forgotten by the public, but one of his inventions will continue to serve as an increasingly important factor in the industrial world. Hall discovered the electrolytic process for the manufacture of aluminum. In 1855 aluminum sold for $90 a pound, and was used exclusively in jewelry. It was rare and costly because of the difficulty of separating it from the clay in which it abounds. When Hall was conducting his experiments in the laboratory of Oberlin university, aluminum was selling for $12 a pound. Today, as a result of his process, 18 cents is the quoted price. It now enters into hundreds of household utensils, and one automobile factory uses more in a year than the whole world produced in like time ten years ago.

### Heavy Producers of Coal.

Two counties in Pennsylvania had a combined production of bituminous coal in 1912 of over 65,550,000 short tons.

# PRODUCTION OF ANTI-HOG-CHOLERA SERUM

Test Pigs—Those With an "X" Are Check Pigs.

(By CHESTER G. STARR, Purdue Experiment Station.)

The anti-hog-cholera serum used in the prevention of hog cholera is obtained from hogs that have recovered from an attack of cholera and have been rendered very strongly resistant to the disease. The modern serum laboratory is a manufactory in the full sense of the word.

Healthy hogs are purchased either at home or at some market; they are vaccinated upon arrival at the serum plant, and good care is taken of them for three weeks. At the end of that time they have fully recovered from the effects of vaccination and are what are termed immunes. At the end of this time, the immunes are given very large doses of very virulent hog-cholera blood. This blood is obtained in the better serum companies by buying healthy one hundred to one hundred and fifty-pound hogs, inoculating them with cholera blood alone. These virus hogs are killed as soon as they show high temperatures and visible signs of cholera. Their blood is carefully collected in bottles or jars, the fibrin filtered out and the resulting fluid is the virus used for injecting into the immunes. Large quantities of virus are given each immune, a 200-pound hog receiving from one to two quarts of this very virulent blood, depending on the method used in injecting it. This dose of virus renders the immune very strongly resistant to cholera, and he is now what is termed a hyperimmune. Ten days after the injection of virus, if the hyperimmune is in good health, the first bleeding is done. Since the tail offers the only place available without danger of bleeding to death, it is selected as the place for bleeding. A small piece of the tail is cut off and the blood, flowing from the cut, is collected in bottles. After a certain quantity is collected, the amount being governed by the size of the hog, the tail is tied to prevent further bleeding, and the hog released. A week later the hog can be bled again. One week after the second bleeding, a third bleeding is done. At this time the serum from the hyperimmune is becoming less potent and the hog is rehyperimmunized by a fresh injection of virus. After the tail is clipped too short for further use, the hog is killed and all of the blood is collected. In some plants that are close by a packing house one bleeding is done. The hog is killed at the time of the first bleeding and the blood collected. The carcass is inspected and passed for food if the tissues are normal.

After the blood is collected in the bottles the fibrin is filtered out, the

Tail Bleeding—Proper Aseptic Precautions.

serum cooled and bottled. It is then placed in a refrigerator to wait for the testing. This is done by trying the serum with pigs and also in the best plants by a bacteriological examination. The potency of the serum is tested by taking some pigs weighing 50 to 70 pounds that are not immune to cholera, injecting some of them with hog cholera blood alone and the others with varying amounts of the serum along with the hog cholera blood. The pigs that receive no serum are termed check pigs and should die from cholera within from five to fourteen days. The pigs receiving serum should remain healthy. If the bacteriological examination shows no bacteria that are liable to produce blood poisoning or abscesses and the potency test is good, the serum of that particular bleeding is labeled with the serial number of the test and placed on the market.

In the main, this is the process of manufacture of anti-hog-cholera serum. The varying results with different serums that can be observed in a community are due to difference in the care and intelligence used in the manufacture. The potency of the serum is governed by the virulency of the virus used, the amount of virus injected at one time, the method of injection and the number of bleedings that are obtained before rehyperimmunization. Other conditions being equal the more virulent the virus, the more potent will be the serum. Nothing but the strongest virus possible should ever be used. Strains of virus that will produce fever and fatal sickness in seven to eight days are much preferable to those that require an incubation of eight to ten days. The usual amount of virus injected at one time when injected into the veins of the immune, is six cubic centimeters for each pound of body weight. If less than this is used, the serum will be apt to be low in potency. The first and second bleedings are of stronger potency than the third bleeding. In practice, equal parts of first, second and third should be mixed for the proper production of serum. Not more than six cubic centimeters of blood at any one time should be bled from the hyperimmune for each pound of body weight. The method of bleeding whether from the tail until clipped too short for further use and neck at the final bleeding or from but one bleeding at the neck as practiced by some serum companies, will not produce any difference in the potency or in the amount of foreign bacteria, provided that proper methods of sterilization are employed.

No virus should be used that is bled from hogs that show lesions of other diseases other than acute cholera. Each virus hog should be carefully examined after bleeding. The amount of bacteria, and especially the number of pathogenic bacteria, is due to the methods of sterilization used. Each hog should be carefully cleaned and disinfected, the tail or neck shaved and sterilized before bleeding, and all bottles or jars should be sterilized. All of the preparation and bottling should be done in clean quarters free from any dust, and no vessels used that are not sterile.

The potency test may be misleading through the use of pigs that are from immune mothers. These pigs may retain enough immunity that they will remain well even though the serum is low in potency. That is one of the reasons why check pigs are used, to show the natural immunity of the pigs. The pigs should also be of the same herd or litter and treated alike.

Under the provisions of the new hog cholera control law in Indiana, Purdue university is charged with the testing of all hog cholera serums and so-called cures that are sold in the state. All of the different serums exposed for sale in the state and a great many of the cures have been tested. The greater majority of the serums have been found to be potent, but no cure has been of any use in either curing or preventing hog cholera. All serums tested by Purdue university are recommended to the state veterinarian, who issues a state permit, under which each serum is sold. At any time this permit can be revoked through the serum not being up to the standard.

# ALSIKE CLOVER IS GOOD COVER CROP

## Well Adapted to Low, Moist Soil —Is Well-Known as Favorite Food for Bees.

Alsike clover, unlike our red clover, is well adapted to low, moist soils, also to dried up land. It should not be sown alone. Six pounds of alsike seed and ten pounds of red clover seed sown to the acre will give a large crop of excellent hay, and a larger yield than if either were sown alone.

Red clover will seldom produce a crop of hay the third year, while alsike will yield good crops from three to five years if the land is in good condition and the season not too dry.

Alsike clover is well known as the favorite food for bees. The honey made from alsike blossoms is said to be of excellent quality. But its greatest value is for pasture. When once firmly rooted it will make a sturdy growth even if the season is hot and the ground dry.

Hay farmers who have grown this clover for some years consider it valuable to mix with meadow grasses, such as foul meadow and red top. Yields of 3¼ to 4 tons of hay have been grown to the acre, and excellent fall pasture may be had until late in the season.

The second crop is said to cause horses to slobber freely, and on this account it is best not to sow alsike in horse pastures. The seed may be had from the agricultural stores. It is thought best to try this clover—sow one-third alsike and two-thirds red clover to the acre the coming spring and note results.

# The KITCHEN CABINET

The people people work with best are
often very quicer;
The people who are people's kin quite
shock your first idea;
The people people choose for friends
Your common sense appall;
But the people people marry are the
queerest folk of all.

### SEASONABLE DISHES.

The use of carrots in the diet should be more common, as the carrot is a valuable vegetable. The elements which it takes from the soil are needed to keep the blood well balanced and in good condition.

**Carrots With Curried Rice.**—Fry one onion in two tablespoonfuls of butter, add two tablespoonfuls of stock and one teaspoonful of curry powder. Cover the pan and gently simmer for 20 minutes. Then throw a half cupful of rice into a quart of boiling water and cook until tender. Have ready diced, cooked carrots and brown in a little butter. When ready to serve, arrange the carrots on a platter, and place the curried rice around them as a border.

**Rose Pudding.**—Pour one pint of raspberry juice into a saucepan and add one cupful of sugar. Add a half-cupful of cornstarch, mixed with a little cold water to the boiling fruit juice and then partly cooled, after cooking well, add a teaspoonful of rose water and almond extract, half of each. Fold in the stiffly beaten whites of two eggs. Dip a melon mold into cold water, drain and sprinkle with chopped almonds. Fill the mold and sprinkle with the almonds. Serve unmolded with whipped cream heaped around the mold.

**Cheese Salad.**—Put one tablespoonful of olive oil and the yolk of a hard-cooked egg into a saucepan, beat together with a spoon, add a half teaspoonful of salt and a quarter of a teaspoonful of pepper to these ingredients, and mix well. Grate a pound of cheese and mix that with a teaspoonful of made mustard, add to the first mixture, and then add two tablespoonfuls of vinegar, and serve on lettuce leaves.

**French Rice Pudding.**—Take a half-cupful of ground rice, add two cupfuls of milk, two tablespoonfuls of sugar, three well-beaten eggs, a quarter of a cupful of raisins and half a teaspoonful of vanila. Cook the rice and milk together six minutes, cool; add the eggs and other ingredients and pour into the oven to bake slowly for an hour.

### GOOD EATING.

Line a pie plate with a rich crust and melt butter and rub over the inside of the crust, then mix together two tablespoonfuls of flour and half a cupful of sugar, put into the crust and pour over it a pint of rich sweet cream and bake a light brown.

**Vinegar Pie.** — Take three eggs, saving two whites for the meringue. Beat together one tablespoonful of soft butter and a cupful of sugar, add a teaspoonful of cinnamon and half a teaspoonful of allspice and three tablespoonfuls of vinegar. Place this filling in a crust and bake in a moderate oven. Cover with a meringue and brown lightly in the oven.

**Crumb Pudding.**—Roll one quart of bread crumbs and put into the oven to brown, put into a pudding dish and pour over it the following custard: Beat the yolks of three eggs, add three-quarters of a cupful of sugar, three tablespoonfuls of flour, a tablespoonful of butter and a grating of nutmeg. Pour boiling water over it until it is smooth (one and a half or two cupfuls), pour it over the crumbs and cover with the beaten whites, which have been mixed with two tablespoonfuls of sugar. Brown in the oven and serve hot.

**Delicious Salad.**—Mix together a cupful of candied cherries cut in bits, a cupful of marshmallows cut in quarters and a half cupful of shredded blanched almonds. Add a tablespoonful of boiled dressing to a cupful of whipped cream and stir the fruit mixture into the cream. Heap on nests of lettuce or in orange or apple cups to serve.

**Maple Pie.**—Take a cupful of maple sirup, add two cupfuls of rich sweet milk and a cupful of sugar, two tablespoonfuls of butter, two tablespoonfuls of flour, cooked together; add to the milk with the yolks of three eggs. Flavor with mapleine and cover with a meringue made of the whites after the pie is baked.

### Hint as to Improvement.

"Father," said the small boy, "is there really a Santa Claus?"

"Why, I believe so, my son."

"But as a boy grows older doesn't a boy's own father come to the front and choose the gifts himself?"

"I shouldn't be surprised if that were the case."

"Well, I hope it is. I haven't said much about it, but after thinking over the presents I've been getting for two or three Christmases past I'd rather cut out Santa Claus and take my chances with you."—Washington Star.

### TIMELY DISHES.

Cranberries are such an addition to the meat course that one likes to serve them in various ways.

**Cranberry Sherbet.**—Take a quart of stewed cranberry juice and add to it the juice of three oranges, a pound of sugar and pack it into a mold to freeze. When like mush, stir in the whites of two eggs, beaten stiff, and finish freezing. Serve with turkey or any meat course.

Cranberries when out of season may be provided if the housewife will put up the juice or the dried fruit itself. During any season the acid fruit is most delightful and may be always at hand.

Cranberries and a few raisins make a most appetizing pie. These may also be canned together for pies.

**Cranberry Whip.**—Stew a quart of cranberries until soft, press through a sieve; return the pulp to a saucepan and add an equal measure of sugar; cook until thick. Beat four egg whites until stiff, then drop the hot pulp by spoonfuls into the egg, beating constantly; add a teaspoonful of vanilla, turn into a buttered mold and bake until firm. Unmold and serve with steamed raisins.

**Oyster Pie.**—Wash and drain a quart of oysters; make a rich baking powder biscuit crust, roll out an inch in thickness, line a shallow dish and fill with the oysters, seasoning well with salt, pepper and a dash of mace. Put an inverted cup in the center of the dish and cover with another crust. Prick deeply with a fork and bake in a moderate oven.

**Apple Pie.**—Make a good rich crust and fill with a good flavored apple. Dust with flour, sprinkle with sugar and nutmeg and bake until well cooked. An hour is not too long a time for fruit pie of this sort. When serving, put a spoonful of ice cream on top and sprinkle with finely grated, good, strong cheese.

Whipped cream with grated cheese is also another good accompaniment to apple pie.

### SPRING FOODS.

It will be necessary for us soon to think of the spring housecleaning season, which brings in its wake many bodily ills. The overfed body is sluggish with the heavy winter foods and a system housecleaning is necessary. This is the time when all nature is rejuvenating and we need to throw off all heavy winter conditions and prepare for the new life of spring.

It is best to gradually drop off from the winter foods, as too sudden a jump may prove serious. Biliousness and various kindred ills may be completely routed by a careful diet and the free use of green vegetables.

Nature provides us in the early spring with just the food we need. Lettuce, cress, dandelion and spinach are invaluable if we expect to keep in a good state of health.

The dandelion contains taraxacum, the tonic which is in many doctors' prescriptions. This acts directly on the liver, stimulating it to a healthy action.

The liver is one of the most important organs in the body and must be kept free to work its process of elimination. When it is clogged and sluggish the whole body is out of order.

Dandelions also add bulk to the food, scraping up the digestive tract; thus poisons which cause autointoxication, constipation and rheumatism are removed from the body. The digestive tract needs flushing and often a more heroic treatment, as we treat drain pipes which become clogged.

Cowslips are another early spring vegetable which does not need to be shipped in, and then later we grow our own spinach and pepper grass in the vegetable garden, which should be a part of every small or large garden.

How much pleasanter it is to eat a nice crisp plate of lettuce than to take nasty-tasting pills or medicine. The addition of oil to any of the salad greens makes them more valuable, as oil is healing, lubricates the tissues and stimulates the action of the liver.

People who do not like olive oil have undoubtedly been turned against it by being served with an inferior quality. Oil should be sweet and nutty in taste and have a most appetizing odor.

Nellie Maxwell.

### Locality Attracts Animals.

A locality that is curiously shunned by plants but a favorite with animals is mentioned by Prof. E. F. Gautier. A hill of rock salt near Jelfa, Algiers, more than three hundred feet high and nearly a mile in diameter, has no plant life except in the alluvium of a few sink-holes, and the salt-impregnated clay about it is equally bare. Animals, on the other hand, especially hawks, doves and other birds, exist in great numbers, making the rock their home and breeding places, though obliged to seek food at a distance.

**Constipation Vanishes Forever**
**Prompt Relief—Permanent Cure**
CARTER'S LITTLE LIVER PILLS never fail. Purely vegetable — act surely but gently on the liver. Stop after dinner distress—cure indigestion, improve the complexion, brighten the eyes.
SMALL PILL, SMALL DOSE, SMALL PRICE.
Genuine must bear Signature
Brent Good
CARTER'S LITTLE LIVER PILLS.

PARKER'S HAIR BALSAM
A toilet preparation of merit. Helps to eradicate dandruff.
For Restoring Color and Beauty to Gray or Faded Hair.
50c. and $1.00 at Druggists.

### Crowning Achievement.

"Was the inventor of the destroyer rewarded?"

"They knighted him."

"And the inventor of the destroyer-destroyer?"

"He was created a baron."

"But the destroyer-destroyer-destroyer's inventor—what was done for him?"

"He was made an earl."

"One more question, if you please—what reward, if any, fell to the author of the book which proves that war is a biological necessity?"

"He was created a duke."

"A duke!"

"Yes. We are a cultivated nation, and but for his grace's work we should never have had the face to make use of the inventions of the others."

**TAKES OFF DANDRUFF HAIR STOPS FALLING**

**Girls! Try This! Makes Hair Thick, Glossy, Fluffy, Beautiful—No More Itching Scalp.**

Within ten minutes after an application of Danderine you cannot find a single trace of dandruff or falling hair and your scalp will not itch, but what will please you most will be after a few weeks' use, when you see new hair, fine and downy at first—yes—but really new hair—growing all over the scalp.

A little Danderine immediately doubles the beauty of your hair. No difference how dull, faded, brittle and scraggy, just moisten a cloth with Danderine and carefully draw it through your hair, taking one small strand at a time. The effect is amazing—your hair will be light, fluffy and wavy, and have an appearance of abundance; an incomparable luster, softness and luxuriance.

Get a 25 cent bottle of Knowlton's Danderine from any store, and prove that your hair is as pretty and soft as any—that it has been neglected or injured by careless treatment—that's all—you surely can have beautiful hair and lots of it if you will just try a little Danderine. Adv.

### The Masters.

Flatbush—You know he's got a picture of one of the old masters at his house.

Bensonhurst—Which wife is it?

**STOMACH MISERY GAS, INDIGESTION**

**"Pape's Diapepsin" fixes sick, sour, gassy stomachs in five minutes.**

Time it! In five minutes all stomach distress will go. No indigestion, heartburn, sourness or belching of gas, acid, or eructations of undigested food, no dizziness, bloating, or foul breath.

Pape's Diapepsin is noted for its speed in regulating upset stomachs. It is the surest, quickest and most certain indigestion remedy in the whole world, and besides it is harmless.

Please for your sake, get a large fifty-cent case of Pape's Diapepsin from any store and put your stomach right. Don't keep on being miserable—life is too short—you are not here long, so make your stay agreeable. Eat what you like and digest it; enjoy it without dread of rebellion in the stomach.

Pape's Diapepsin belongs in your home anyway. Should one of the family eat something which don't agree with them, or in case of an attack of indigestion, dyspepsia, gastritis or stomach derangement at daytime or during the night, it is handy to give the quickest relief known. Adv.

### A Limited Journey.

Ed—He seems to be wandering in his mind.

Fred—Well, he can't stray far.

Red Cross Bag Blue makes the laundress happy, makes clothes whiter than snow. All good grocers. Adv.

He is a poor sign painter who is unable to make a name for himself.

**Sore Eyes** Granulated Eyelids, Eyes inflamed by exposure to Sun, Dust and Wind quickly relieved by Murine Eye Remedy. No Smarting, just Eye Comfort. At Your Druggist's 50c per Bottle. Murine Eye Salve in Tubes 25c. For Book of the Eye Free ask Druggists or Murine Eye Remedy Co., Chicago