

Construction of sod houses

Section 14, Pages 391 - 420

This collection consists of correspondence, plans, and specifications on the construction of sod houses. In 1932, the Kansas State Historical Society put out a call for information about and instructions on constructing a sod house, in order to create one in the museum when it was located at the Memorial Building in Topeka. The collection includes all correspondence received from this request, handwritten and typed reminiscences from around the country from men who built and lived in sod houses, as well as some of the standardized responses sent by the Society's secretary.

Date: 1932

Callnumber: Kansas State Historical Society, Sod Houses, Plans and Specifications on Construction, Boxes 1-2

KSHS Identifier: DaRT ID: 228755

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KANSAS
HISTORICAL
SOCIETY

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Union Grove Wis.
April 23, 1932.

Kirk Mechem
Topeka
Kan.

Dear Sir.

In reading my Racine Daily I
came across a little item of where
you wished to build a Sod House.
Now my cousins in Neb. have
always had the old Sod house
their mother had & if I am not
mistaken still live in it & I
know they could tell you about
it. Their names are Ed Smith
& Mrs ^{Mariah} Surber. Orafino
Nebraska. Hoping this may
be of benefit to you. I remain
yours truly

Mrs Elmina Trayer
Union Grove
Wis.



April 15, 1932

Mr. O. E. Furman,
Norcatur, Kansas.

Dear Furman-

Thank you for your letter of April 11 and for the photographs. I am sending you check for one dollar to pay for them.

Letters continue to pour in from all over the country. If we don't build a sod house it won't be because we haven't been told how.

Sincerely yours,

Secretary



Mayor—Fred Scheetz

Clerk—O. E. Furman

Treasurer—Bessie Canfield

CITY OF NORCATUR

Member of the League of Kansas Municipalities

Councilmen—

C. E. Dixon, President
E. N. Kiou, M. E. Croy, S. H. Hatcher
Milton Jackson, Marshal—C. N. Temple

Regular Council meetings are held on the
1st and 3rd Monday's of each month.

1930 Population 525
Elevation above sea level 2,654 feet

NORCATUR, KANSAS,

Apr. 11, 1932.

Quirk Mechem,

Dear Sir, Replying to yours of the 8th
I truly wish that we were so situated that I
could build one more sod house for you for
historical purposes. Am sure that I could do
a good job. As to the sod part I believe
that I can even answer that though the haul
would be long. The best sod I have ever
seen used is the alkali sod to be had
in Cheyenne Co. north east of St. Francis.
Old houses there now that have stood for
twenty years could be torn down and rebuilt,
and I presume places could still be found
where it could be broken out fresh.

John Ramsey, St. Francis, Kans. Rural Route is
a farmer in that neighborhood if you cared
to write him. Some good "blue stem" sod is
still to be found here but we would have
to hunt for it.

About the photos:— I am somewhat handicapped
in placing them as our negatives went through a

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NORCATUR, KANSAS

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fire, the records were burned and many negatives lost or damaged. I am writing on the cards what I can remember of each, and returning them as you request.

I could not furnish any of these pictures in the $6\frac{1}{2} \times 8\frac{1}{2}$ size. When they were taken nearly every one had them made in one size or the other so the photos are different ones in the different sizes.

I have none printed up now in the $6\frac{1}{2} \times 8\frac{1}{2}$ size but in quality they run about the same. I could finish you some in this size later at 50c. each mounted on a heavy 8×10 card. There is considerable extra work about this as with no records I must hunt over a whole lot of filed away plates to find the kind wanted. Please write me again if I can be of any further use.

Sincerely,

O. E. Furman



April 13, 1932

Mrs. J. B. Graham,
Minneapolis, Minnesota.

Dear Mrs. Graham-

In behalf of the Historical Society I want to thank you for your letter of April 11 in response to our request for information about the construction of sod houses.

Persons living in all parts of the country-- from New York to California and from Michigan to Texas-- have responded with detailed instructions. So widespread an interest has convinced us that a sod house in our museum will be a unique historical exhibit and will attract hundreds of visitors. The principal difficulty is to get a sod that will withstand several handlings and the necessary trucking. There is no scarcity of men who know how to do the work; in Topeka alone there are eight or ten who have built and lived in sod houses. If we can obtain suitable sod we expect to have the house ready for inspection by fall.

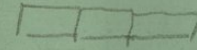
Sincerely yours,

Secretary

Ans / Minneapolis Minn
April 11 - 1932
Historical Society -
Tepika Kan
Kirk Mechem. (no sod on the roof)
(Dear Sir all your
article on sod houses
Presume you will have
had several answers ere this
but I will give you a
description of the one we
lived in in eastern Iowa
60 years ago during the ^{Indian} out
break in Minnesota. There
was studding to hold the
boards. (very wide boards)
and boarded inside the same.
The roof of the same boards.
(Oak cut sod in spring)

and also the floors, these boards were nailed to sleepers, door was also made of wide boards with a piece across top and bottom to keep them from warping. The old fashioned thumb latch. (didn't need a burglar alarm either) The roof was made of same large boards with a small board to cover the crack it never leaked. The roof was slanted at the back to drain off snow & rain we had ours papered inside, (not wall paper either) Plain wrapping paper

The windows pairs of glass framed to




over the door. The back, I always kept inside to see in the rear would cover and often went to the barn losing our the house. a fish store must be the tough in the loan

Construction of sod houses

...also
 boards
 cross top
 keep them
 the old
 into latch.
 angles
 The roof
 some large
 small
 the crack
 . The roof
 the back
 on + rain
 papered
 2 paper either
 paper

The windows were 3 large
 pains of glass, crude
 frames to match the rest
 [] on this order, one
 over the door, and one in
 the back. I know father
 always kept a large shovel
 inside to shovel us out-
 in the morning. The snow
 would cover the clothes line
 and often we dare not go
 to the barn for fear of
 losing our way, back to
 the house. (and this isn't
 a fish story either) The sod
 must be prairie sod to
 be tough enough to hold
 the loam together

Construction of sod houses

must be uniform in
size to look neat, 20 inches
thick, longer than wide
to cover bare quickly it
is some job. and I laid
one on top of the other, farmed
around the windows clear
to the top of the shack (not
a bungalow) the sod was 9
in wide 12 in in length
and must be laid on like
brick work to keep them
from falling out. 
I feel sure I could go out
and build one if I didn't
hit my thumb instead of
nail. I hope I have made
this plain Mrs J. B. Graham
715-3 and 20 Minn
Minn

April 14, 1932

Mr. Bowman E. Githens,
Hutchinson, Minnesota,

Dear Mr. Githens-

In behalf of the Historical Society I want to thank you for your letter of April 11 in response to our request for information about the construction of sod houses.

Persons living in all parts of the country--from New York to California and from Michigan to Texas--have responded with detailed instructions. So widespread an interest has convinced us that a sod house in our museum will be a unique historical exhibit and will attract hundreds of visitors. The principal difficulty is to secure a sod that will withstand several handlings and the necessary trucking. There is no scarcity of men who know how to do the work; in Topeka alone there are eight or ten who have built and lived in sod houses. If we can obtain suitable sod we expect to have the house ready for inspection by Fall.

I want to thank you again for your interest and to invite you to visit the museum whenever you are in this locality.

Sincerely yours,

P.S. Your letter was of special interest and value and I very much appreciate your assistance.

Secretary

ans
with
PS

Hutchinson Minn
April - 11th 1902

Minn

Mr. Kirk Mechem
Topeka Kan.

Dear Mr. Mechem

In reading the Sun Tribune
noticed an item Kansas Wonders
how to build a Sod house. this
interest me enough to write to
you. as my folks and I spent
several years in a sod house and
no house is more comfortable it
was warm in winter and cool in
summer we could not hear the cold
winds or feel the cold and oftentimes
the mercury from 30 to 60° below
zero. My father went to Canada

Construction of sod houses

(2)

The spring of 1896 took up a claim of 160 acres of land and ~~one~~ three more for my two brothers and myself. two of my brothers went with father, mother two sisters and a brother myself expected to go latter after he got money enough to build a house he was killed ~~six~~ week latter the remains shipped back to Ohio for burial my two brothers also returned we then all went to Le an. the prvince of Sask. we also shipped a car of emmigrant effects as stock and furniture to Craik Sask. Can. a small town about 75 miles from our homestead. I think there were only one family living about twenty miles from Craik

Construction of sod houses

(3)

But during the same spring there were shacks and sod houses went up all over the country there were seventeen carloads of emigrant shipped from ^{Nebraska} C. in the month of March, 1906. there were aboard one man with each car. although many were smuggled through however it was a lovely trip I think every one enjoyed it. latter the homesteaders families were given special rate from Hayton Q. and came latter they also enjoyed the trip immensely. we was not very flushed with money so we built a frame house one ply of boards of half inch lumber the boards were papered with heavy paper and wall paper over. The heavy paper, the



(41)

Boards were nailed on the inside of the rafters and sodded on the outside we started about four feet square in at bottom and tapered gradually to about 14 in. at the top a height of about 9 feet high. we took the sod from a slev. near by. a tough sod with a little alkali of which seemed to make it more endurable we plowed the sod with an ordinary plow about 14 in wide and two to three inches thick. used an ax or a sharp hatchet cut the sod about 14 in long we found it hard and dirty work. we started to cut the sod about 18 or 20 in. long but found that to hard work. however we laid the sod close to

Construction of sod houses

5th
The boards filling in loose dirt
in the best places and being very
careful to break joints of which is
very essential the sod must not be too
thick as not to get too much soil
the roots help hold the sod together
more over sod also had a little
alkali of which I believe made it
more durable but do believe too much
alkali soil is ^{not} good the sod must
be tough and care be taken in build-
ing as it may lean and topple
over. we built a sod room to
the house about twelve feet
square with a sod roof that
never leaked we had to haul
our poles from the brush at
Manitou Lake about a distance
of 45 miles. The homesteaders



(6)
at Manitowish, also had a sod
house and barn. he lived in it
untill he married his wife
made him build a house.
however in refering to our addition
sod room we laid poles about
six inches apart high in the center
so as to run the water off quickly
during a rain. laid a small layer
of thin brush cover with sod smooth
in up the surface well with dirt
and layed two more layers of dirt
and sod likewise we had a
roof that never leaked. the roof
of our house was of half inch
lumber of course the roof if sod
must be well supported in the
center as the sod and dirt gets
very heavy. and in the fall we

(7).
Built a sod barn 70 feet long
and 14 feet wide we just put
a brush and hay roof it would
leak in wet weather we also dug
a hole for water in one end of
the barn for water as the weather
was very severe in winter often
times before we could get the
stock outside for water to a well.
as many times have seen a
flood for three days and some-
times a week. however before we
struck water the hole about 10 feet
deep. two of our young heifers
got loose in the barn and wander-
ed in the hole although we had
a frame work around it to pre-
vent such a catastrophe. we
called some of our good neighbors

Construction of sod houses

(A.)
 Thrown the loose dirt back that
 we had taken out and inch by inch
 raised them up and out of the
 hole and ^{neither} ~~neither~~ critter hurt.
 The sown was about two feet
 deep on the level we would turn
 the stock out for a little exercise
 if the weather favorable the open
 and cattle would walk over the
 roof for some of the old boys alth-
 ough we had plenty of good
 hay for them to eat. one Sun. even-
 ing ~~would~~ was milking when
 of the open walked on the
 roof and went through I was
 provoked and still was one of
 the funniest things had ever seen
 he was a big or and fell through
 on his back while he hadn't



(9)
 Far to fall and did not hurt
 him but he seemed so surprised
 his feet straight up. he turned
 his head and looked over at me
 and just laid there a moment
 before trying to get up. he
 fell just behind the corn was milk-
 ing. however the barn stood for
 about five years we were then
 able to build new building & I
 do not know how long the house
 would have stood as we came
 home one day in April 1909 and
 found the house burnt to the ground
 some of the sod burnt the heat was
 so intense that it melted glass
 jars and roasted a ham in the
 cellar no ham could have been
 roasted better by barbecue a good

Construction of sod houses

(1, 2)
 First for the dog. There was a Mr.
 Smith who built a sod house
 a neighbor who lived in it for
 10 years and could have used it
 longer he became quite prosperous
 and built new house and barn
 and purchased more land they
 were very hard working people
 he also plastered the house
 with mud on the inside and
 did a good job. I just know
 it was plastered I do not know.
 I believe could find out for you.
 there were the good old days
 I have a fondness for the
 people in that country for we
 went through the same hardships
 to gether broke bread to gether
 most of them have been very prosperous

Construction of sod houses

11.
I love to think of the years
lived in that country expect to
return in a couple more years
and perhaps live there, they
now have grown children and
some married. I shall never
forget them. many people do
not know the joy in home-
steading. I like the Canadian
people and Canadian government.
can not speak too highly of both.
we left Canada and homesteaded
in Montana for seven years. could
write an interesting book on pioneering
14 years in the two countries my
sister ^{and} since we left Montana have
studied violin and are now teaching
we love our students and love the work.
perhaps this is a lengthy letter



12

And not exactly to the point
my former years are years I
like to think about and write
about. however if here not made
it clear in how to build a sod
house would gladly answer
to the best of my ability any
question you wish to ask.

Very Truly Yours

Borman C. Githens

560 Franklin St.

Hutchinson

Mo.

Construction of sod houses

*Ans.
with PS*

Vergennes, Vermont,
May 31, 1931

answered June 2, 1932

Mr. Kirk Mechem,
Secretary Kansas Historical Society,
Topeka, Kan.

Dear Sir:

Having just read a statement in a local paper the substances of which is that you would like to build a sod house in your state museum and would like to know how, I am writing to say that having seen such houses built some sixty to seventy years ago, I will try to tell you how--if possible.

You obtain your sod by turning it over with a plow just after a rain while the ground is wet. For then the sod will not break as it will when it is dry.

Set the wheel of your plow so that the share will run beneath the roots of the grass.

The width of the sod depends upon the size of your plowshare. Some of the shares cut a width of twelve inches, some cut fourteen inches.

The sod of ordinary prairie grass is the kind. The sod of buffalo grass will not hold together as the kind mentioned does.

With a spade cut your sod into bricks as long as you want them. The usual length was about three feet.

While the sod is damp lay the sod-bricks as you would ordinary bricks. Your wall will be as thick as the sods are wide.

For a roof, you set a fork at each end of your walls, lay a ridge pole in your forks, and you will need at least one upright pole extending from the center of the floor to this ridge pole, as a support. Then lay small poles and brush with one ends on the ridge pole to the outer edge of the walls---together with a large number of the small poles for rafters. Cover the poles and brush with ordinary grass which you would cut for hay, and cover the hay ~~***~~ with sod laid very close together, and fill up the spaces between the sods with dirt or gravel.

The ordinary sod house had two windows in each side. These windows had no frames as a rule--some of them did have frames. "A sheepskin for a window, a blanket for a door," the chorus of an old song of those times said.

You could plaster your house with a white, sometimes there was a colored clay, in the creeks in some regions of Kansas--I believe the right name for the clay is gypsum. It was plastic, and you could make it as thin as you wanted to with water. When it was spread on the surface of your walls--and that was

Construction of sod houses

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the way to apply it--spread it onto the walls. It soon dried and became hard as some of the stone in that region--I am thinking especially of the forks of the Solomon River. But the same material--kind of clay and sod was also in the northern part of the state.

The sod house was warm in the winter and cool in the summer. Indeed, it was a very comfortable habitation.

Many of the dugouts were made in pretty much the same way. But the dugout was dug four or five feet into the ground, and sod walls were built up on the edges of the dug walls.

Both of these kinds of habitations were extensively used up to a little more than fifty years ago in Kansas, and I am surprised that there are not many descendants of the first families of Kansas who could tell you better than this attempt of mine how to build one of those houses of remembering days.

If this information proves to be of help in your dilemma, I shall be glad.

Cordially yours,

Joseph K. Griffis
Joseph K. Griffis.

P. S. I should have said that while the grass is green in the springtime is the best season in which to cut the sod.

I shall be pleased to know how you make out with your sod house when you get it built.

J. K. G.



April 18, 1932

Mr. E. Heffner,
Lancaster, Ohio.

Dear Mr. Heffner-

In behalf of the Historical Society I want to thank you for your letter of April 16 in response to our request for information about the construction of sod houses.

Persons living in all parts of the country-- from New York to California and from Canada to Texas-- have responded with detailed instructions. So widespread an interest has convinced us that a sod house in our museum will be a unique historical exhibit and will attract hundreds of visitors. The principal difficulty is to secure a sod that will withstand several handlings and the necessary trucking. There is no scarcity of men who know how to do the work; in Topeka alone there are eight or ten who have built and lived in sod houses. If we can obtain suitable sod we expect to have the house ready for inspection by Fall.

I want to thank you again for your interest and to invite you to visit the museum whenever you are in this locality.

Sincerely yours,

Secretary



Ans
Lancaster O. Apr. 16-32

Mr. Mechem.

Sir. I see in the Columbus Citizen you are contemplating building a sod house. like the settlers used to make. I have had considerable experience in building sod buildings in N. Dakota and will come and build for you a good substantial building if you so desire.

Yours Truly
E. Heffner
231 - S. Broad st
Lancaster
Ohio



April 8, 1932

Mr. Henry Hatch,
Gridley, Kansas.

Dear Mr. Hatch:-

We received so many responses to our request for information about the construction of sod houses that it was impossible to answer them all immediately. In behalf of the Historical Society I want to thank you for your letter and for the information it contained.

Persons living in all parts of the country--from New York to California and from Michigan to Texas-- have responded with detailed instructions. So widespread an interest has convinced us that a sod house in our museum will be a unique historical exhibit and will attract hundreds of visitors. The principal difficulty is to secure a sod that will withstand several handlings and the necessary trucking. There is no scarcity of men who know how to do the work; in Topeka alone there are eight or ten who have built and lived in sod houses. If we can secure suitable sod we expect to have the house ready for inspection by Fall.

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Sincerely yours,

Secretary

P.S. Your letter was of special interest and value and I very much appreciate your assistance.

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KANSAS FARMER

MAIL & BREEZE

PUBLISHED BY ARTHUR CAPPER

JAYHAWKER FARM

HENRY HATCH, DEPT. EDITOR
GRIDLEY, KANSAS

TOPEKA, KANSAS

March 15, 1932.

Mr. Kirke Mechem,
Secretary State Historical Society,
Topeka, Kansas.

Dear Mr. Mechem: In a recent Capital I note you were looking for information on the building of a sod house, and also some information on the old "dug-out" of the early day. When a boy I came to the West from Vermont and lived a greater part of the first year in a "dug-out", and sod houses were aplenty, and when a youth I helped to build one.

A tough sod, from a very tough clay soil is best to build with. Size of sod usually depended upon the size of the homesteader's breaking plow, and the depth of the plowing determined, of course, the thickness of the sod. The strength of the team on the plow usually determined the depth of plowing. The homesteader having a 12-inch plow built with sod approximately 12 inches wide, and a common depth of plowing such sod was from 4 to 5 inches. The 14-inch plow turned a sod about 14 inches in width, etc.

A few built a double wall, but most were built as a single wall. The bachelor homesteader usually built his either 10 by 14 or 12 by 14, the man of family larger and with two or more rooms. Side walls were usually carried up to a height of 7 feet. Gable ends were of sod but the rafters were of two by fours, covered with cheap boards, a foot or more in width, then tar paper over this held down by a few lath. The stovepipe went directly thru this roof. Inside of walls were plastered with a sort of blue clay that was procurable in a few places along a certain stream, in my locality, and remained quite hard. Sometimes newspapers, as they came, usually at the rate of one a week, were pasted over this crude plastering, from which place they were read again and again by visitors.

I may be in Topeka in a few days, at which time I will endeavor to step in for a short chat with you, as I had the pleasure of doing a year ago. Could build you a sod house, the exact counterpart of the ones many of our neighbors lived in, and in which I spent many happy hours during my youth.

Sincerely yours,

Henry Hatch
Gridley, Kan.

Kansas Farmer is Read by More Than 120,000 Farm Families Every Week



Construction of sod houses

April 8, 1932

Mr. Guy C. Hanna,
Lansing, Kansas.

Dear Mr. Hanna-

We received so many responses to our request for information about the construction of sod houses that it was impossible to answer them all immediately. In behalf of the Historical Society I want to thank you for your letter and for the information it contained.

Persons living in all parts of the country-- from New York to California and from Michigan to Texas-- have responded with detailed instructions. So widespread an interest has convinced us that a sod house in our museum will be a unique historical exhibit and will attract hundreds of visitors. The principal difficulty is to secure a sod that will withstand several handlings and the necessary trucking. There is no scarcity of men who know how to do the work; in Topeka alone there are eight or ten who have built and lived in sod houses. If we can secure suitable sod we expect to have the house ready for inspection by Fall.

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Sincerely yours,

Secretary

P.S. Your letter was of special interest and value and I very much appreciate your assistance.

Construction of sod houses

Mr Kirke Mechem

Topeka Kansas.

Secretary of State of Kansas.

1868



3/-24th/32-

Buy C. Hanna

Box = 2-

Lansing Kansas.

Dear Sir I will try and give you a little of your Sod House-
Data. for Historical Society. of the Construction of an Old Sod-
House which was used in Kansas in early days: I lived
in a Sod House from 1868 untill 1878: with my Father and
Mother: and Sister. I was 8 years old when we came to Kansas: and
he Built a Sod House: of two rooms first later added two others:
our Corral for Cattle also of Sod: a very little lumber was use: Just
a board covering: the a layer of Sod: which after was covered
with fine dirt about 6 inches: you will have a 6 inch Board
on the edges of your roof to keep dirt from washing off in rainy wea-
ther: the floor is also dirt: the window had no glass: just Board-
shutters no casings: Jus you Sod: the door was of common boards 1X12-
with leather hinges: the House should be 16X24-or 18X36= walls
3 feet wide: and 7 feet high: you Sod will be 12 inches wide 3 in-
thick and cut in 3 feet lengths: laid same a Brick: the Sod sho-
uld be from short grass range: you will have aboard 3 feet 6 in-
ches land: with a rope through holes in ends for handles to Buck
Sod With. in later years they used 2X8 for cassings: if you
wish: you windows will be 2 foot Square: I have help Build
Sod Building: and been them in several States: I have been a
resident of Kansas 64 years: will be 72-16 of May 1932- I seen
the Drouths: the grasshoppers in 1873-74- they eat all but the
Sod Houses- those wer hard times: I will Draw a Diagram
of a Sod house I am no architect so you will excuse the rude-