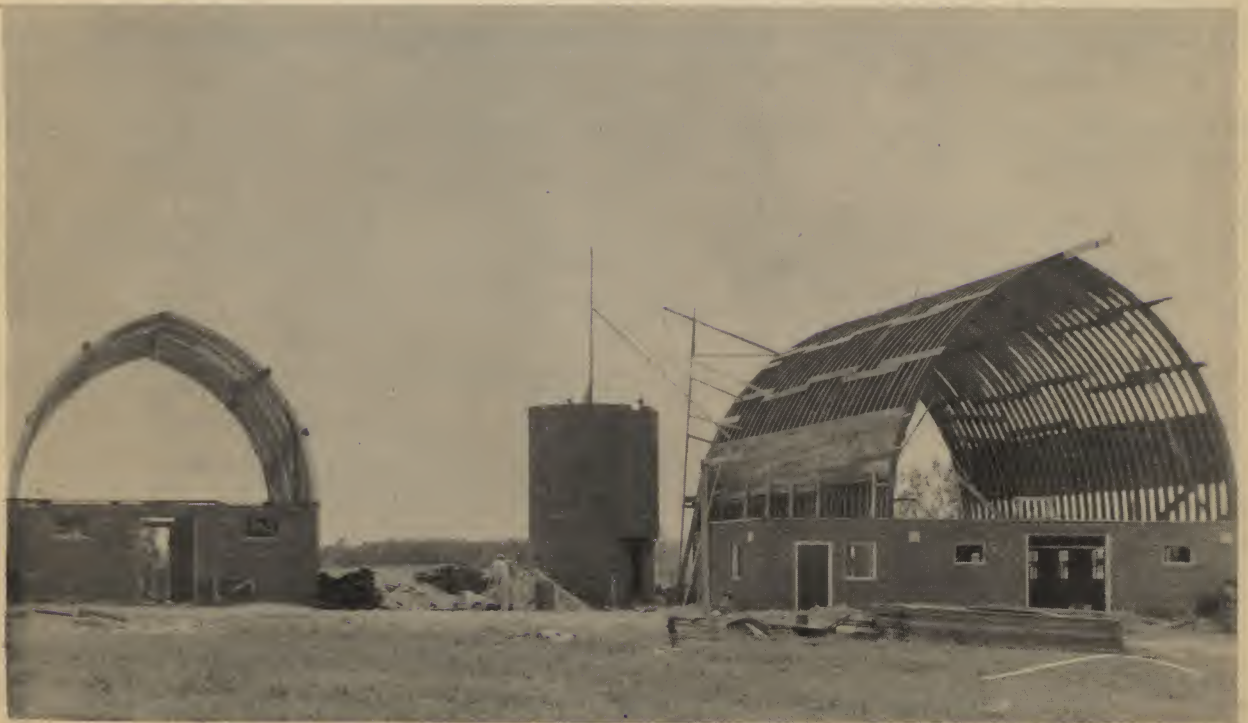


10 Cents
Per Copy

THE BLUE BOOK OF BARNNS



THESE BARNNS ARE SHOWN COMPLETED ON THE BACK COVER

FREE PLAN SERVICE



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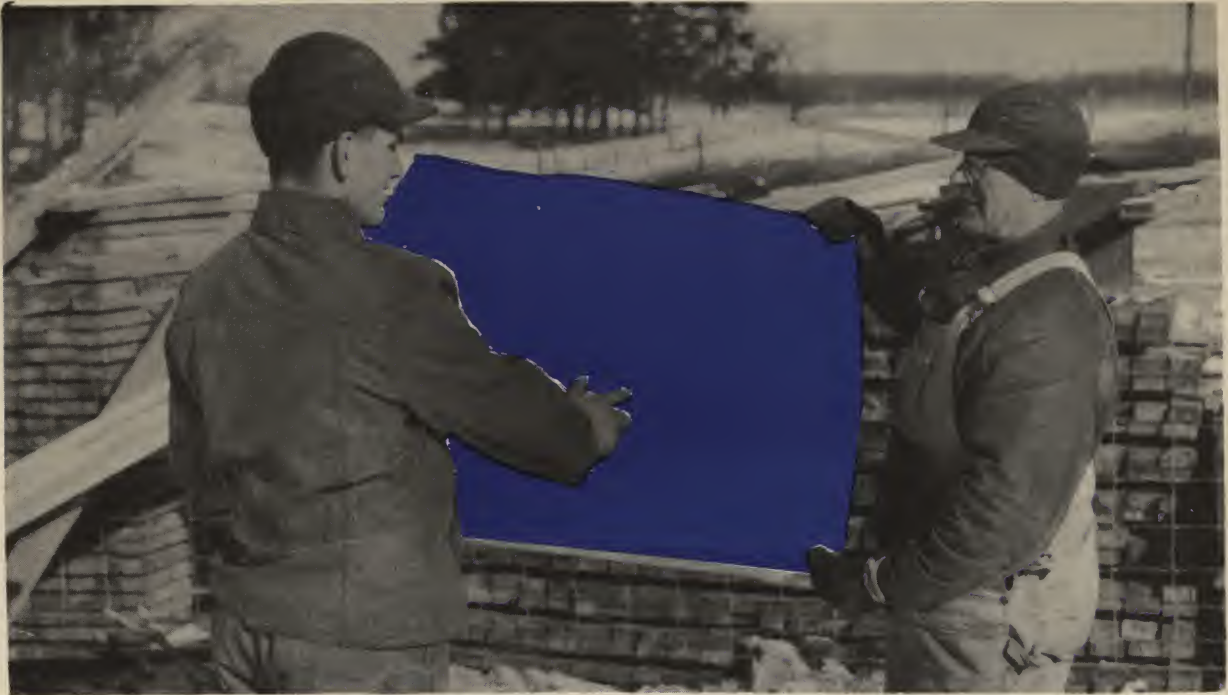
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business is conducted by men who have made this work a life study and have designed hundreds of the best barns in the country. This service is Free—yours for the asking. Simply make a rough pencil sketch of the floor plan you have in mind or make a pencil correction of any plan in this book. Mail it to us and we will send you a blueprint with any other information you may desire.

FREE PLAN SERVICE



FIVE IMPORTANT THINGS FOR YOU TO DO

- **FIRST**—Carefully select the location for your barn, taking into consideration convenience, fire hazard, drainage, sunlight, etc.
- **SECOND**—Determine the proper size of the barn to house your stock and provide adequate storage space for the various feeds.
- **THIRD**—A good floor plan showing the arrangement of the stalls for horses and cows. The arrangement of pens and the proper size and spacing of windows.
- **FOURTH**—Plan your roof construction, whether Gothic, Gambrel or double pitched roof depending on the storage space you will need for your herd.
- **FIFTH**—By all means get a free OLSON plan covering the above things before you contract for any material or labor. Save money by **PLANNING BEFORE YOU BUILD.**

We maintain a free barn plan service department for the benefit of all who are interested in the building of better barns. Whether you wish to build a new barn, remodel an old one, or build an addition to the one you now have, you are interested in securing the very best barn possible for the amount of money invested. You can have a better barn if you begin planning now, and get advice from men who have made a thorough study of modern barns, and the problems of dairymen.

Regardless of whether your proposed barn is to be large or small, our barn plan service department can submit to you a plan that will not only please you, but will also save you money. This department of our business is conducted by men who have made this work a life study and have designed hundreds of the best barns in the country. This service is Free—yours for the asking. Simply make a rough pencil sketch of the floor plan you have in mind or make a pencil correction of any plan in this book. Mail it to us and we will send you a blueprint with any other information you may desire.

A FEW IMPORTANT FACTS TO CONSIDER BEFORE BUILDING OR REMODELING



Your barn may be a one story or two story structure. If two story, it may be Gothic or Gambrel roof type.

If you have a one story barn, your foundation should be from 12 to 18 inches deep and 8 to 10 inches wide. For a two story barn, the foundation should be 18 to 30 inches deep and 10 to 14 inches wide at the base. In warm climates siding over sheathing is satisfactory; but in cold climates the walls should be well insulated inside and sheathed over the insulation. Masonry walls should be built as nearly frost-proof as possible.

Various roof constructions are shown throughout this book, giving construction details as well as storage space estimates for loose hay. We have tried to show the most popular floor plans for you to choose from, which can easily be changed by making them larger or smaller to suit your requirements.

The cross section of floor construction should be

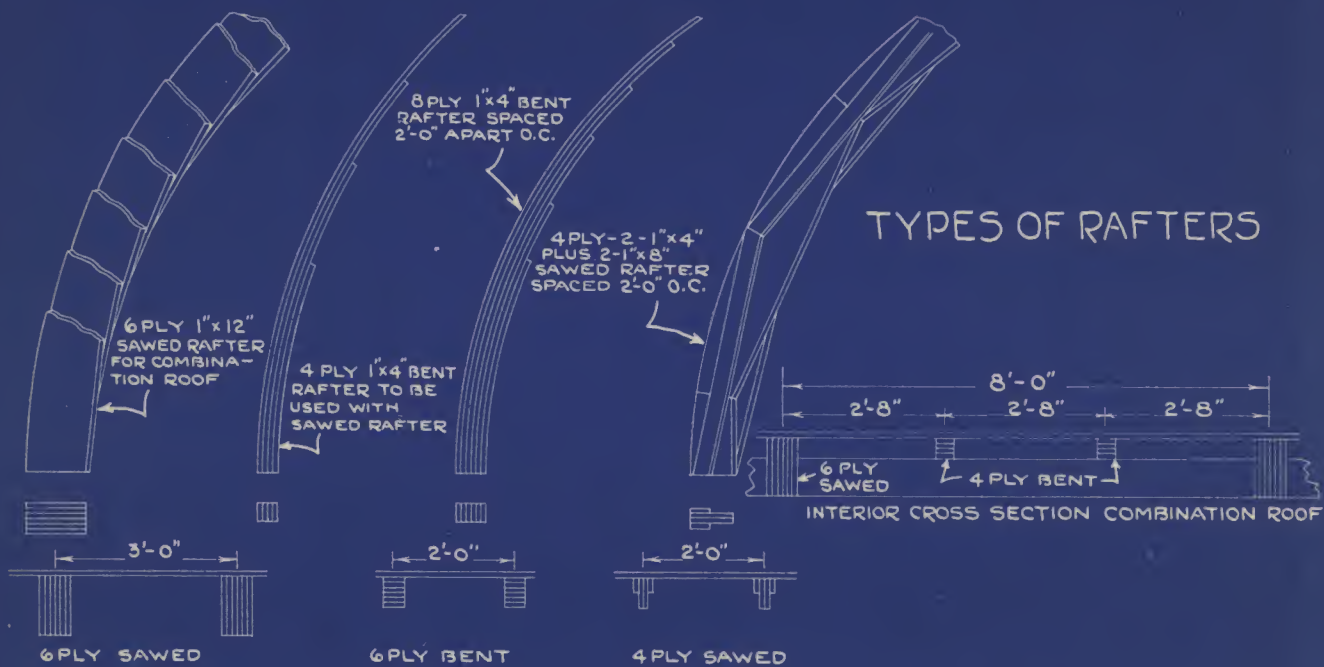
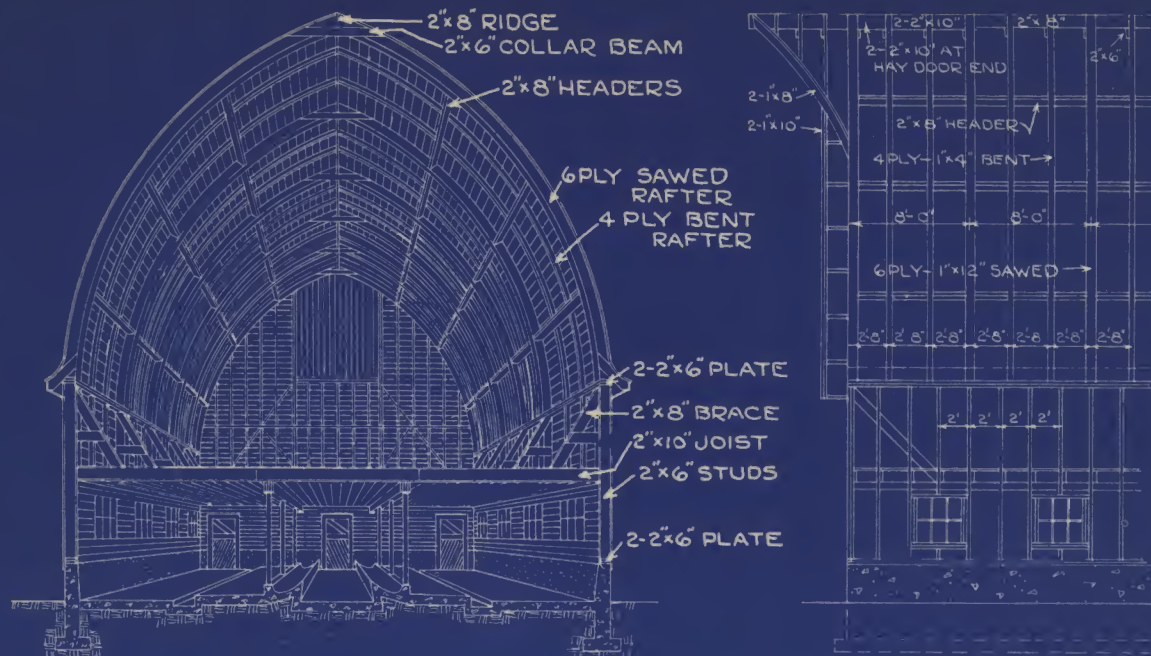
followed closely. Floors are usually about 4 inches thick, requiring one sack of cement for 20 square feet of floor space. The mixture is commonly four parts sand and gravel to one part of cement.

In colder latitudes the ventilation of the barn is most important. The principles of ventilation are understood by many, but the application of these principles is so largely a matter of experience that it is not safe for the farmer or contractor to attempt to build or install a system without the advice of an experienced Ventilation Engineer who has had a wide experience in barn ventilation. Write and tell us you are interested in ventilation, and we will give you full details for your particular case.

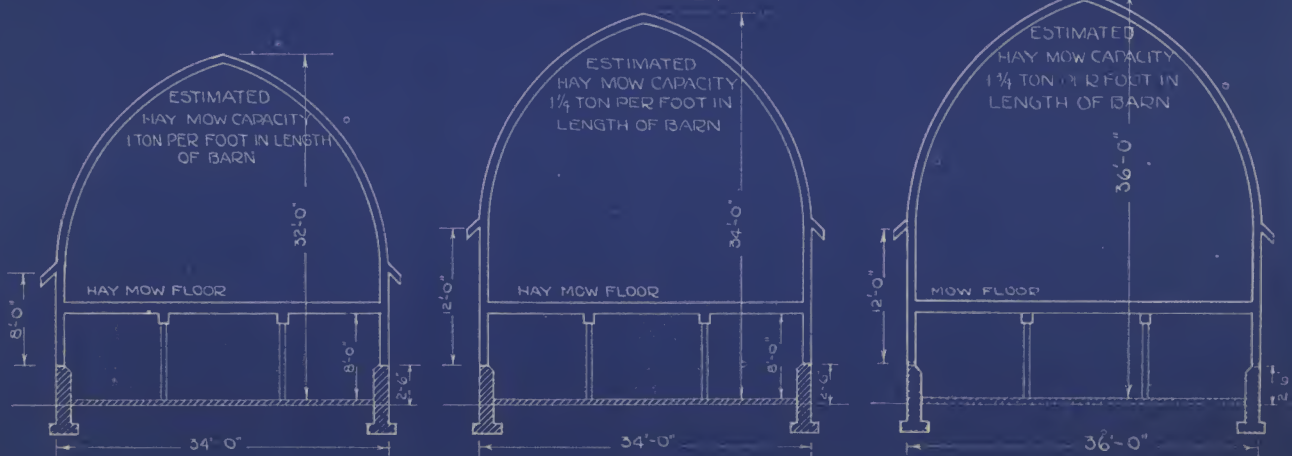
Study the pictures and plans in this book, select the ones you like best, and then write us for further information and FREE BARN PLAN SERVICE.

One of the very important things when building a new barn or remodeling an old one is to be sure to get the required amount of light. It has been found that the bottom of the windows should be about 4 feet above the main alley floor. As a convenience for you, we are showing below a schedule for window requirements. These figures are based on one square foot of glass for each 20 square feet of floor area. Never use less than one square foot of glass to 25 square feet of floor area. It is always best to follow your local Milk Ordinance with reference to the number of windows required, as well as the proper location and equipment for your milk room.

WIDTH BARN	LENGTH OF BARN		40'	50'	60'	70'	80'	90'	100'
	SIZE WINDOW	GLASS AREA BY SQ. FT.							
32 ft.	4 li. 10x12	3.33	19	24	29	34	38	43	48
	6 li. 10x12	5.	13	16	19	22	25	28	31
	6 li. 10x16	6.66	10	12	14	17	20	22	24
34 ft.	4 li. 10x12	3.33	20	25	31	36	41	46	51
	6 li. 10x12	5.	14	17	20	23	26	29	32
	6 li. 10x16	6.66	10	13	15	18	20	23	25
36 ft.	4 li. 10x12	3.33	22	27	32	38	43	48	54
	6 li. 10x12	5.	15	18	22	25	29	32	36
	6 li. 10x16	6.66	11	14	16	19	21	24	27



GOthic ROOF



THE OLSON LINE



Table Shows Number, Length of Row and Width of Stalls

NO. OF COWS	WIDTH OF EACH STALL FROM CENTER TO CENTER					
	3' 1"	3' 2"	3' 3"	3' 4"	3' 5"	3' 6"
1	3' 1"	3' 2"	3' 3"	3' 4"	3' 5"	3' 6"
2	6' 2"	6' 4"	6' 6"	6' 8"	6' 10"	7' 0"
3	9' 3"	9' 6"	9' 9"	10' 0"	10' 3"	10' 6"
4	12' 4"	12' 8"	13' 0"	13' 4"	13' 8"	14' 0"
5	15' 5"	15' 10"	16' 3"	16' 8"	17' 1"	17' 6"
6	18' 6"	19' 0"	19' 6"	20' 0"	20' 6"	21' 0"
7	21' 7"	22' 2"	22' 9"	23' 4"	23' 11"	24' 6"
8	24' 8"	25' 4"	26' 0"	26' 8"	27' 4"	28' 0"
9	27' 9"	28' 6"	29' 3"	30' 0"	30' 9"	31' 6"
10	30' 10"	31' 8"	32' 6"	33' 4"	34' 2"	35' 0"
11	33' 11"	34' 10"	35' 9"	36' 8"	37' 7"	38' 6"
12	37' 0"	38' 0"	39' 0"	40' 0"	41' 0"	42' 0"
13	40' 1"	41' 2"	42' 3"	43' 4"	44' 5"	45' 6"
14	43' 2"	44' 4"	45' 6"	46' 8"	47' 10"	49' 0"
15	46' 3"	47' 6"	48' 9"	50' 0"	51' 3"	52' 6"
16	49' 4"	50' 8"	52' 0"	53' 4"	54' 8"	56' 0"
17	52' 5"	53' 10"	55' 3"	56' 8"	58' 1"	59' 6"
18	55' 6"	57' 0"	58' 6"	60' 0"	61' 6"	63' 0"
19	58' 7"	60' 2"	61' 9"	63' 4"	64' 11"	66' 6"
20	61' 8"	63' 4"	65' 0"	66' 8"	68' 4"	70' 0"

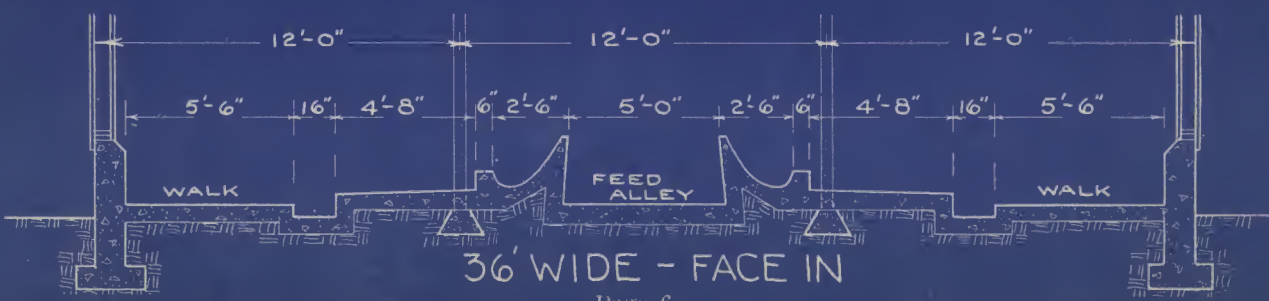
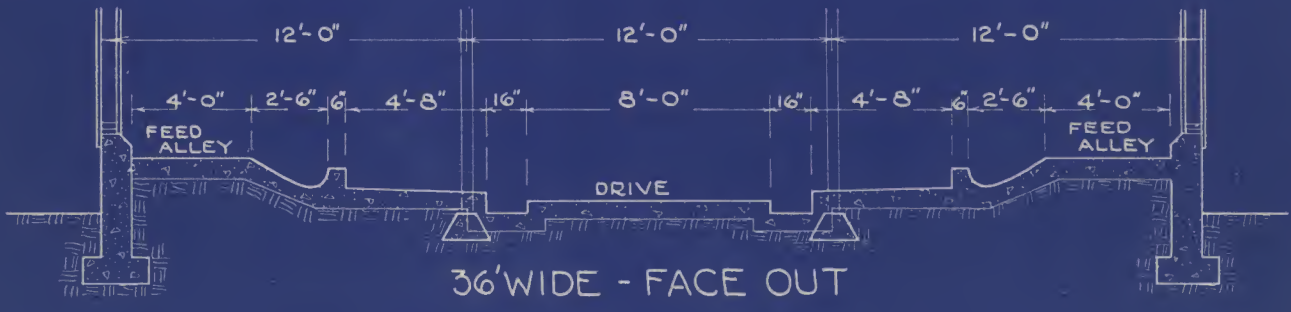
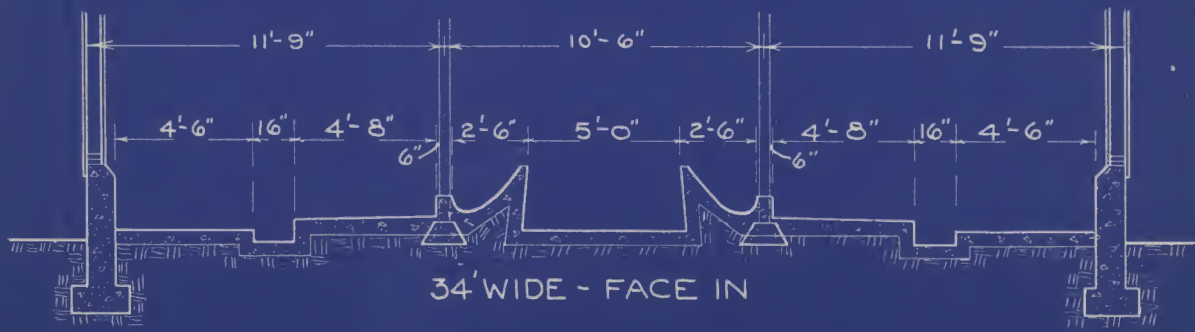
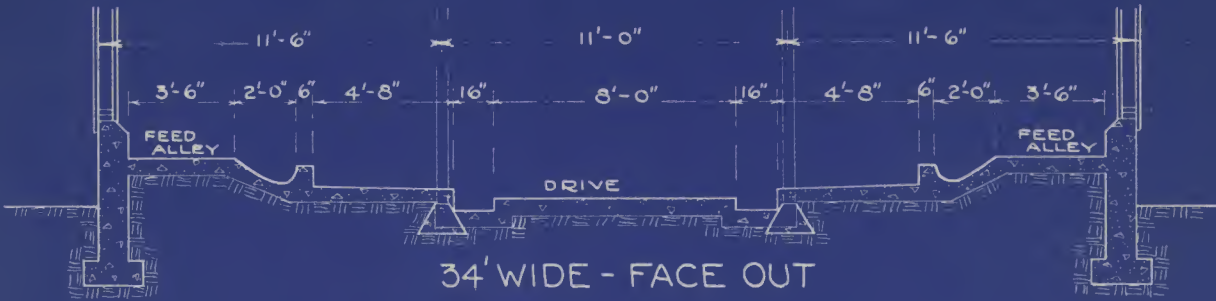
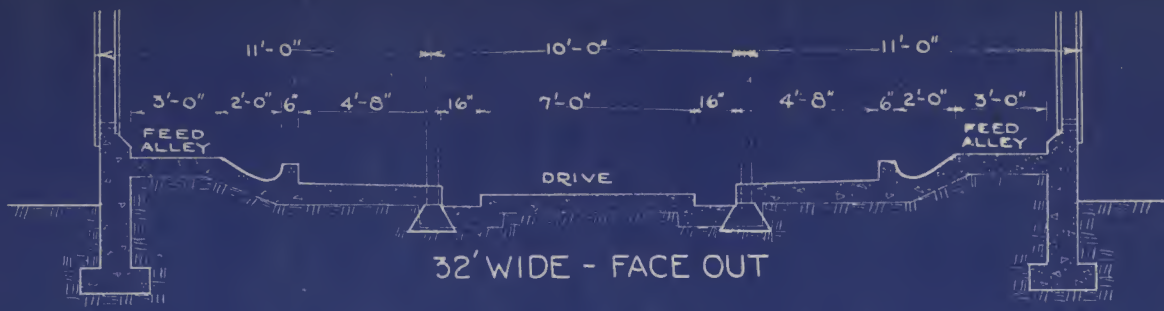
If more than 20 cows are wanted in a row add the sum of two figures together. Example: If 30 are wanted add the figures opposite 20 to the figure opposite 10 and the sum of these two will be the length of the row.

SIZES OF SILOS

Size of Silo	*Capacity in Tons	Acres to Fill-15 Tons To the Acre	Amount That Should Be Fed Daily	**Feeding Capacity	Size of Silo	*Capacity in Tons	Acres to Fill-15 Tons To the Acre	Amount That Should Be Fed Daily	**Feeding Capacity
12x30	59	4.5	755	17	16x50	214	16.0	1340	49
12x36	77	5.8	755	21	16x60	276	20.0	1340	77
12x40	88	7.3	755	24	18x40	199	18.8	1700	55
12x50	120	11.0	755	34	18x46	241	22.6	1700	67
14x30	80	6.1	1030	22	18x50	271	25.5	1700	75
14x36	104	7.9	1030	29	18x60	350	32.2	1700	97
14x40	120	9.2	1030	33	20x40	245	18.8	2100	68
14x46	146	11.0	1030	41	20x46	298	22.6	2100	83
14x50	164	12.3	1030	46	20x50	334	25.5	2100	93
16x36	135	10.3	1340	38	20x56	391	29.3	2100	109
16x40	157	12.0	1340	44	20x60	432	32.2	2100	120
16x46	190	14.4	1340	53					

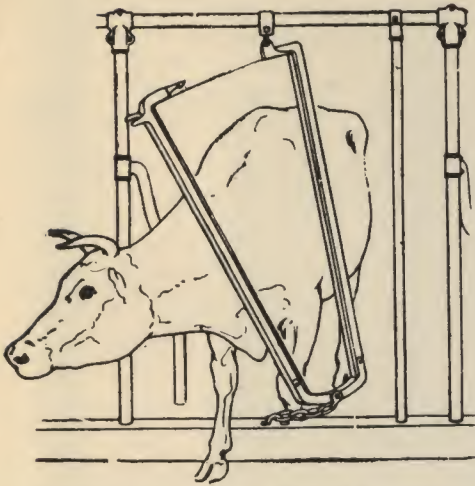
**Will carry this number of cattle 180 days, feeding 40 pounds daily per head, which is a fair average for the wintering of Breeding Cows and for Dairy Cattle.

*Capacities based on Chart of Agricultural Experiment Station, University of Nebraska, published by Iowa State College.

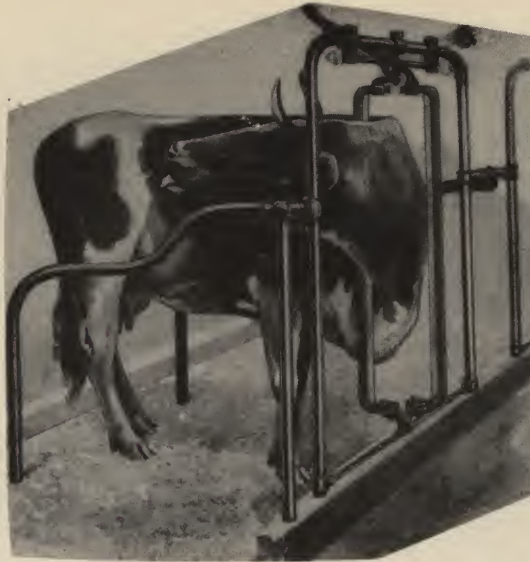


BE SAFE WITH A TWO-WAY STANCHION

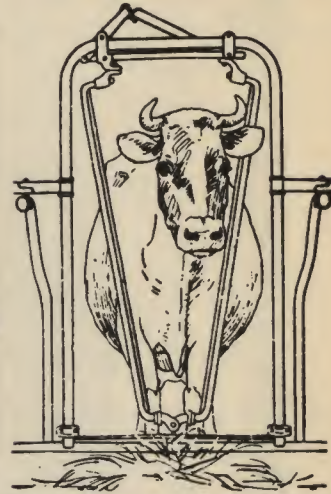
THIS COW GOES WRONG



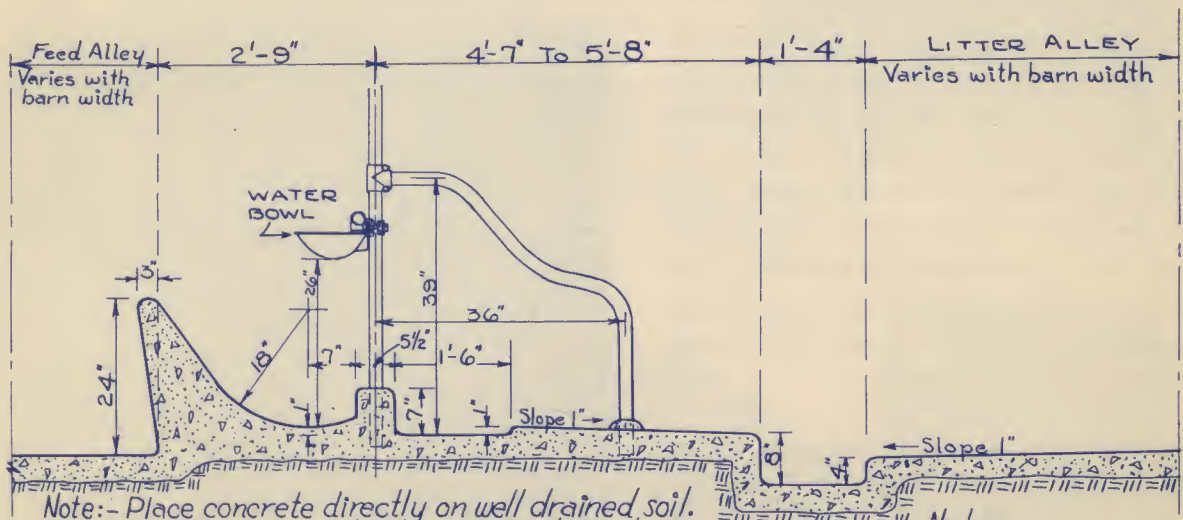
Cows often go through a stall with a one-way stanchion.



THIS COW GOES RIGHT



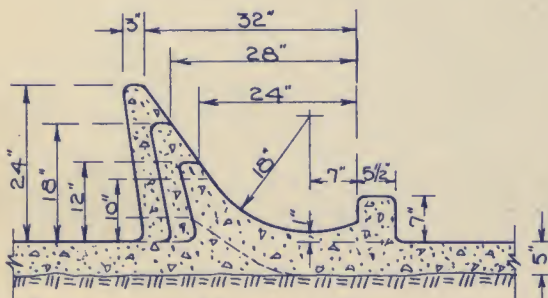
Cows never go through an OLSON stall with two-way stanchion.



Note:- Place concrete directly on well drained soil.
Place 6" cinder or gravel fill on poorly drained soil.

Note:-
All surfaces float finished except Manger
Feed alley and gutter
which are trowel finished.

CROSS SECTION



ALTERNATE MANGER DETAILS

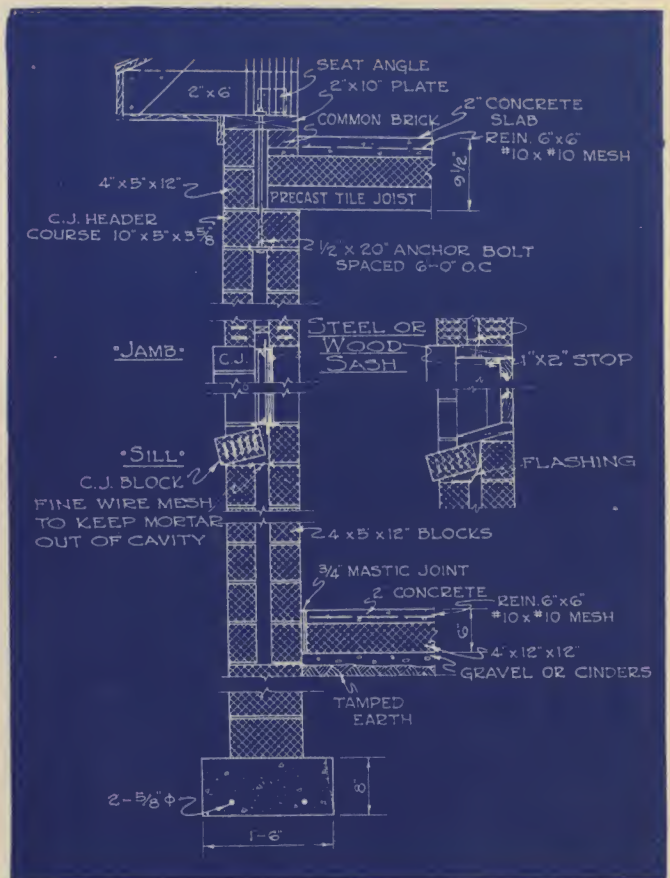
BREEDS	STANDARD STALL DIMENSIONS		
	Length of Platform		
	Small	Medium	Large
HOLSTEIN	4'-10"	5'-2"	5'-4"
SHORTHORN	4'-8"	5'-0"	5'-2"
AYRSHIRE	4'-6"	5'-0"	5'-2"
GUERNSEY	4'-6"	4'-10"	5'-0"
JERSEY	4'-4"	4'-6"	4'-10"
HEIFERS	3'-8"	3'-10"	4'-0"

Be Sure to Make Bottom of Feed Manger 1 Inch Higher Than Platform Where the Cow Stands

THE OLSON LINE



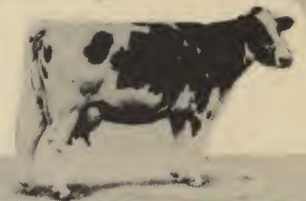
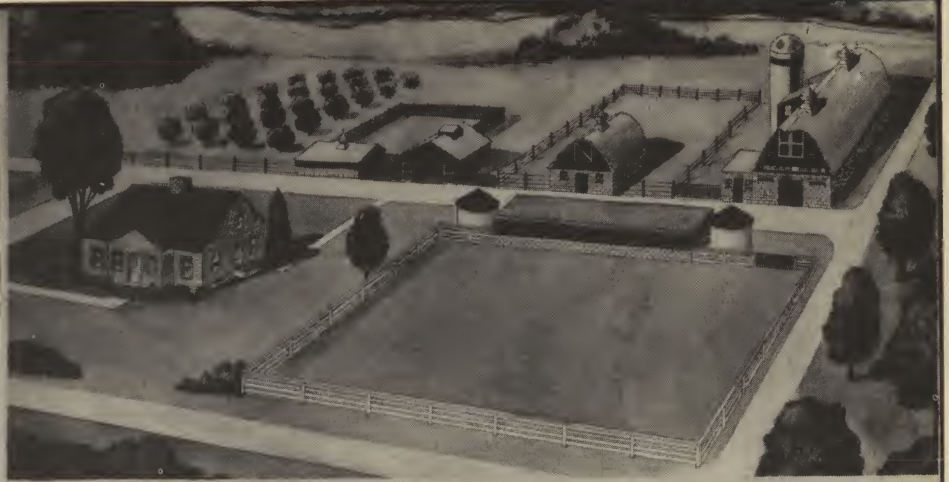
This attractive barn is an exceptionally fine structure throughout. It is practically fire-proof because the side walls and ceiling are of clay tile. Mr. Arthur Wickstrom of Isanti is the owner. His farm is located about fifty miles north of Minneapolis, and he invites all who are interested in building a new dairy barn to personally inspect his barn and equipment. The fire-proof ceiling of this barn is shown in the picture below.



A 10 inch wall is used with a 2 inch air cavity for insulation. The above drawing shows the details of wall and ceiling construction.

THE OLSON LINE

WELLS
Glendairy
FARM
Albert Lea, Minn. Rt. 3



Visitors Always Welcome
At Glendairy Farm

THE OLSON LINE

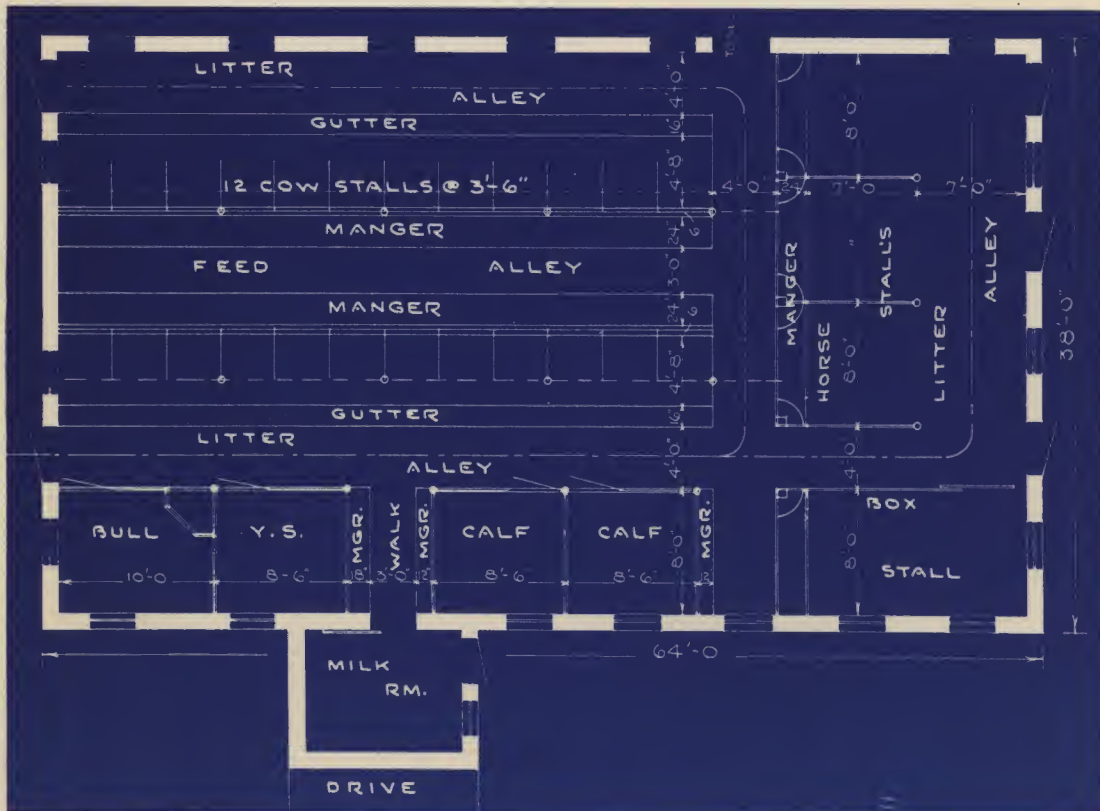
GET YOUR
FREE
OLSON
PLAN
FIRST
—
STUDY IT
CAREFULLY



YOU MAY WISH TO
MAKE SOME
CHANGES



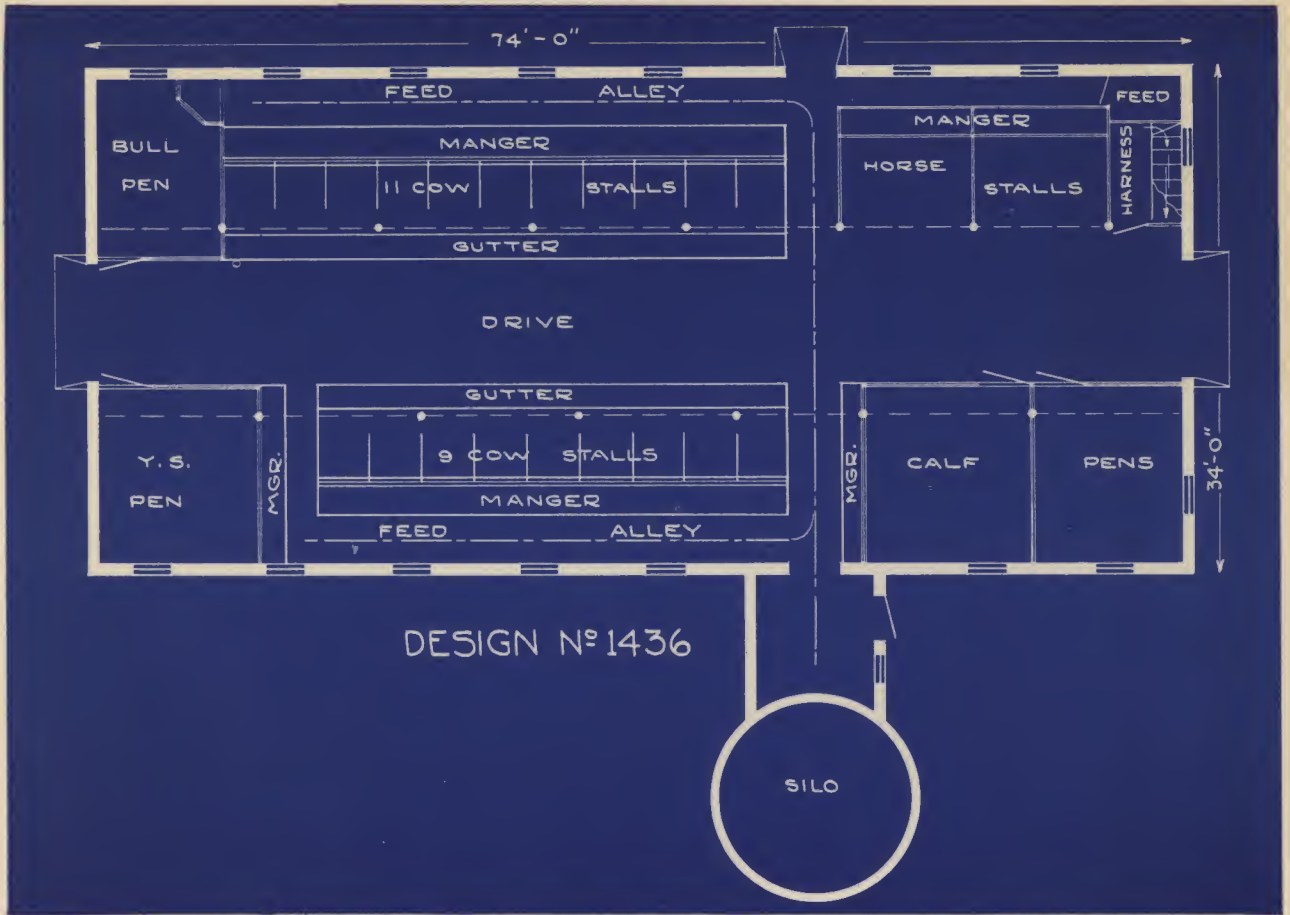
GET THE PLANS
BEFORE YOU BUY
ANY MATERIAL



Plan No. 1222

Mr. Wm. Kraemer says: "I am very much satisfied that I bought the OLSON No. 5 cow stall with two-way stanchion. This was a little more expensive than stalls with one way stanchions but I am very happy that I did not let the difference in price interfere with my better judgment. We are perfectly pleased with all our OLSON equipment."

THE OLSON LINE



FROM OLSON FREE PLAN SERVICE

Mr. Hugo Bremer is justly proud of his fine barn and says: "I very much appreciate the OLSON plan service and it saved me money in building. We have been users of OLSON equipment on this farm for at least 40 years so, naturally, it is all OLSON equipped."

**BARN
NO. 1436A**



This Gothic Type Metal Roof makes an attractive structure. It is 34 ft. x 74 ft. and houses 20 cows plus generous pen facilities. Note the overhead feed track for ensilage service shown on blue print.

THE **OLSON** LINE



●
EQUIPPED
WITH
THE
OLSON
LINE
THRUOUT
FROM
CUPOLAS
TO
STEEL
EQUIPMENT
●

In the fall of 1936 C. F. Keeling and Sons built and equipped the above barn. Late in 1940 an addition was necessary to properly house their splendid herd of Guernseys. The picture shown below shows the addition which has also been fully equipped. The interior arrangement accommodates 65 milk cows and four calf pens. This farm is located near Des Moines, Iowa, and you may be fully assured that you will be welcome at the Keeling's.



THE **OLSON** LINE



This barn was built in 1924 and is fully OLSON equipped and ventilated. It has withstood the test of time, in everyday use. The unusual type of gable end hay door is well shown in this picture. This door slides up and down and has two counterweights that make for easy operation. The dormer windows in the roof are necessary to properly light the hay mow in this large barn and they also add to the general outside appearance. There is ample room for feed bins and storage for roughage in the mow.



THE OLSON LINE



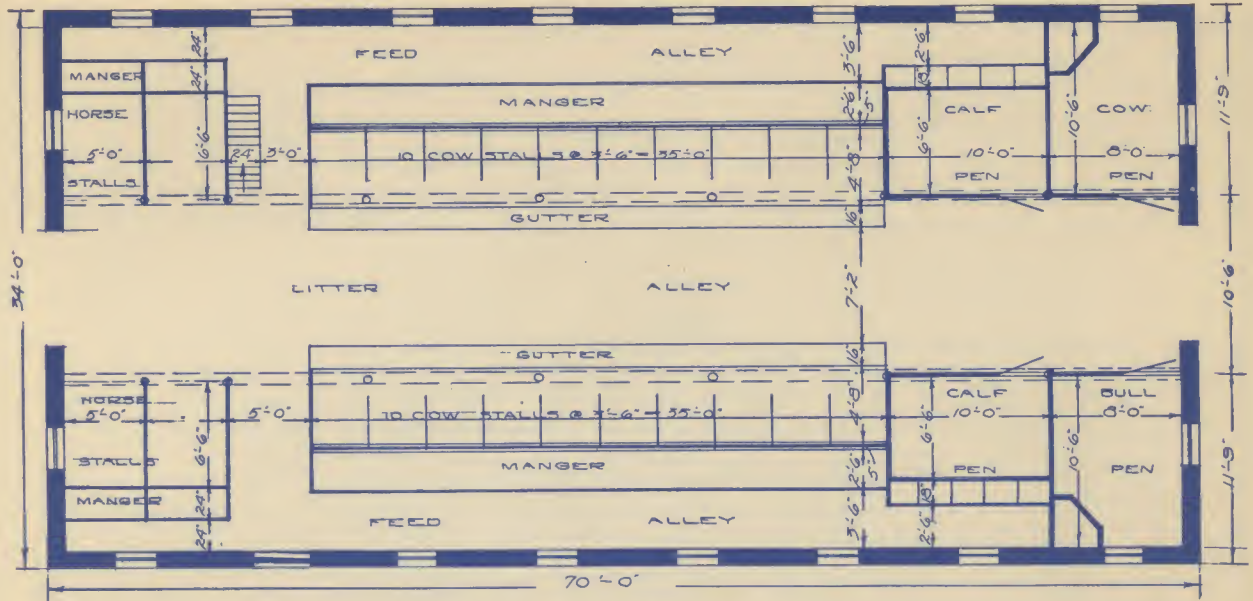
This barn has gable ends of clay blocks, and the size is practical in that it permits the arrangement of pens for the calves as well as the bull. These are essential in any good type dairy barn.

The stalls that are shown are the arch type having two-way opening stanchions with bottom strap fasteners instead of chains. This permits the use of an 8 inch curb rather than a 6 inch curb, which means a considerable saving of feed since the cows are unable to get it over the curb and back under their feet.

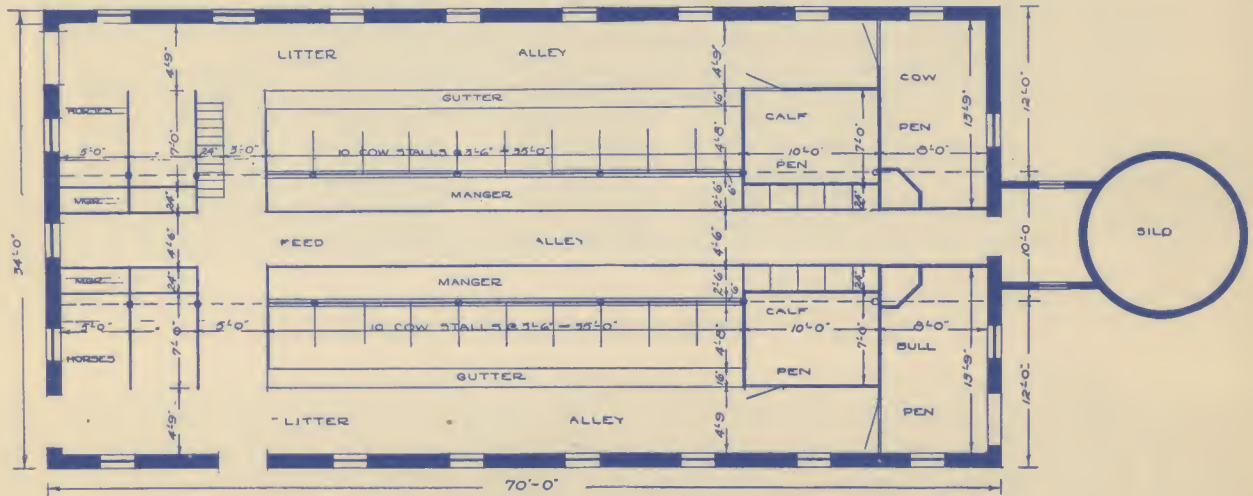


Olson Floor Plans for Combination Horse and Cow Barns

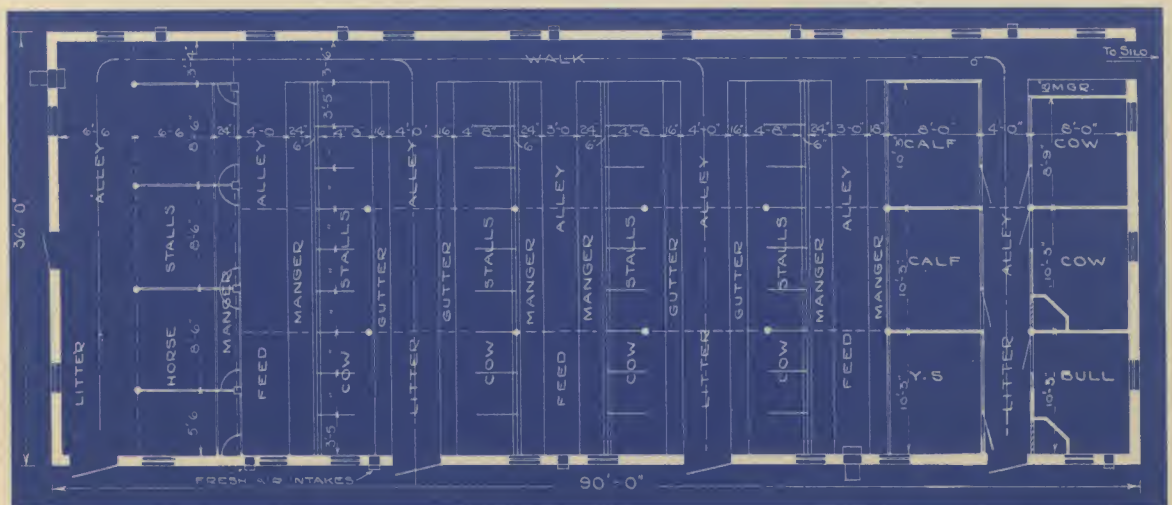
ANIMALS FACE OUT — No. 2020



ANIMALS FACE IN — No. 2824



ANIMALS CROSSWAYS — No. 2338



THE OLSON LINE



OLSON Equipped barns always please

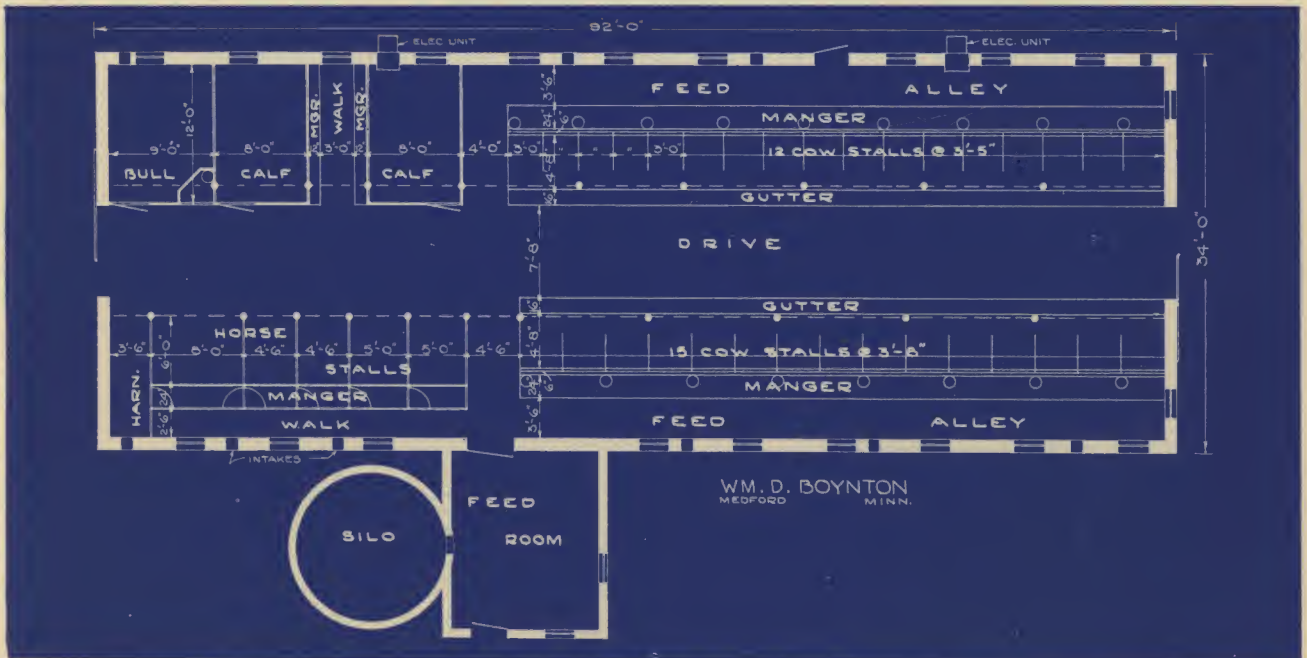
This Barn and OLSON Barn Equipment have stood
the test of time.



THE OLSON LINE



●The picture of this beautiful barn does not nearly do it justice. Like most of the other pictures in this book, the original picture is taken by the owner with a small kodak and the small print is sent to us. We have it enlarged and with varying results. With the photograph the enthusiastic owner usually writes us about the joy and satisfactions his OLSON equipment is giving him. It's a "thank you" letter he writes us for the plan service and the part we took in helping him secure a good barn. We are also proud to be a party to getting satisfactory results in our line of endeavor and it makes for many enduring friendships. The Boyntons are proud and happy with this new barn and we appreciate having been privileged to serve them. The barn must be seen to be appreciated.



THE OLSON LINE

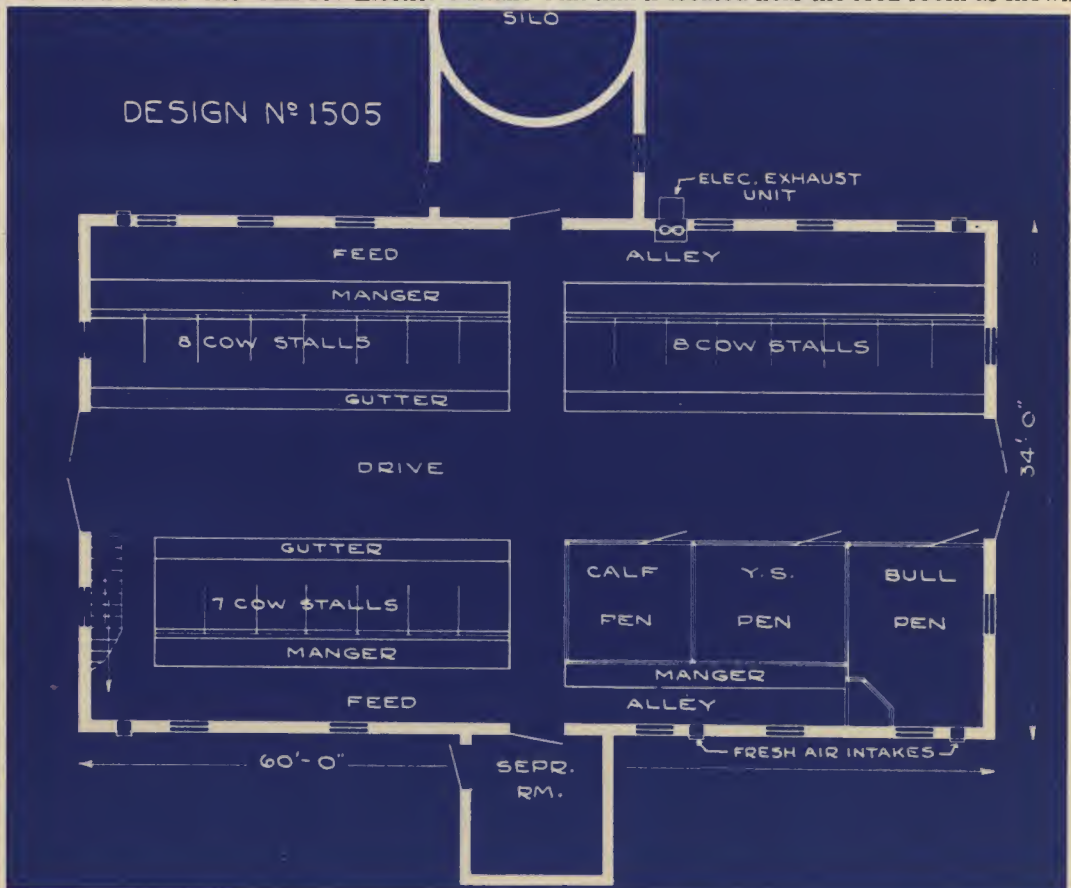
NO. 1144A



**Save Labor
Save Time
Save Feed**

Mr. Bangert of Manchester, Minn., says: "I think my new barn is about as handy as it is possible to make a barn. We, of course, prefer OLSON Equipment and your electric ventilating system has them all beat. I have a dry barn and have perfect control over the temperature. The electric unit uses very little electricity and that is a point every purchaser should consider before he buys an electric system."

This is exclusively a dairy barn, 34 ft. x 60 ft. for 23 cows, bull pen, young stock pen and calf pen. Well arranged for convenient feeding. The cupola on the roof provides ventilation for the hay mow only. The stable is provided with fresh air intakes and one OLSON Electric Outtake Unit that is located near the feed room as shown on the blueprint.



**Your
OLSON
FREE
PLANS
Will
Please
You**

THE OLSON LINE

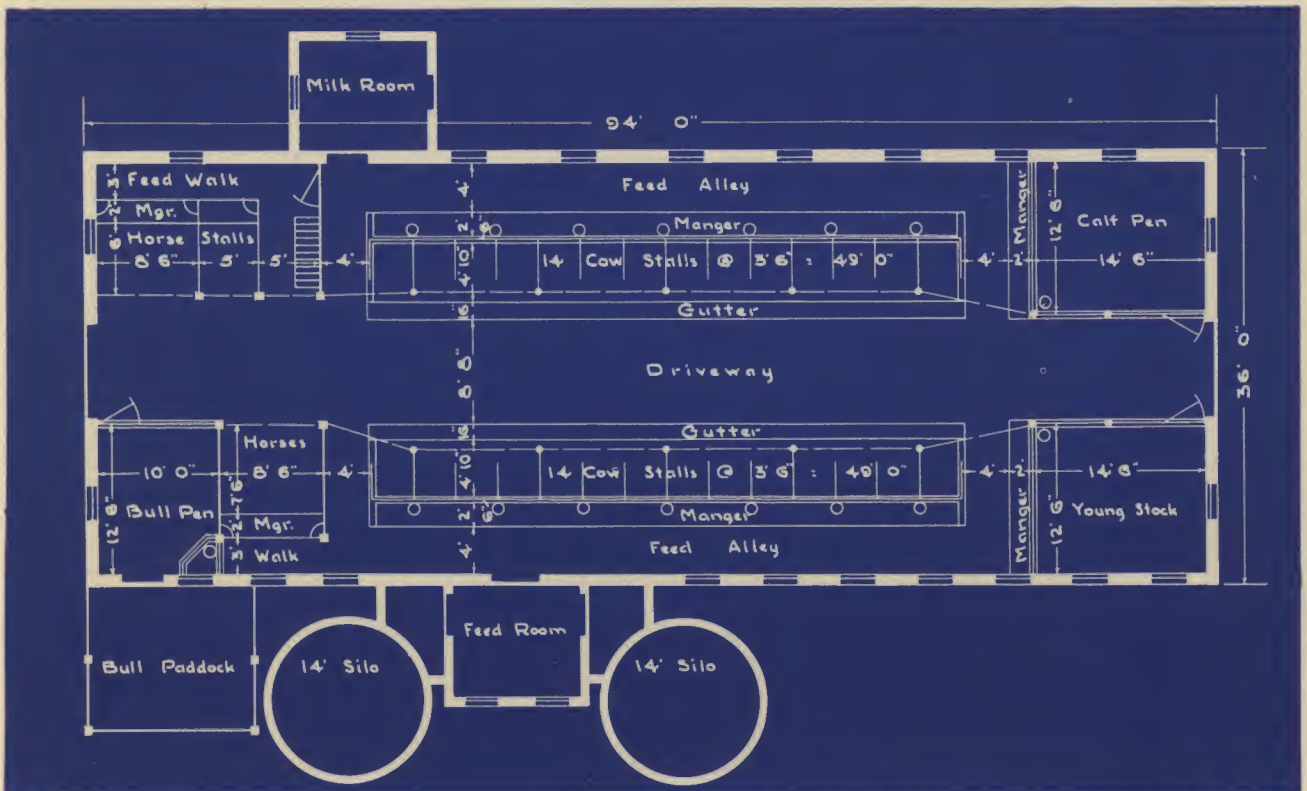


Mr. Priebe, a successful Waseca businessman, owns and operates a beautiful farm east of town. It was Mr. Priebe's ambition as a boy to own this particular farm, and since purchasing it he has improved it in many ways.

The finest improvement is the modern 94 foot dairy barn built in 1943. He realized that planning as well as construction were important factors, and these were supervised by his builder, Rasmus Iverson.

The calf pen is shown in the opposite end of the barn from the milk room; but future plans call for the elimination of the horse stall near the bull pen, where the calf pen will be placed, making feeding more convenient. At that time the present calf pen will be used for young stock.

Mr. Priebe is indeed happy that his boyhood ambition is realized, and he is always glad to welcome anyone who is interested.

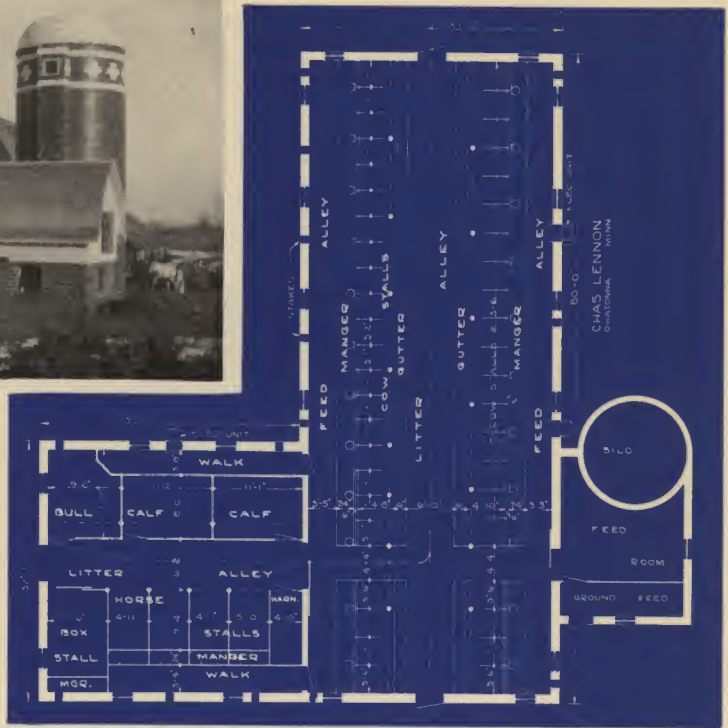


THE OLSON LINE



Plan No. 3280

● Mr. Chas. Lennon of Owatonna, Minn., says: "We decided to visit the OLSON factory and take full advantage of the Barn Planning Department. You made several plans before we finally decided which to use. The enclosed snap shot gives you an idea of its finished appearance. We now feel



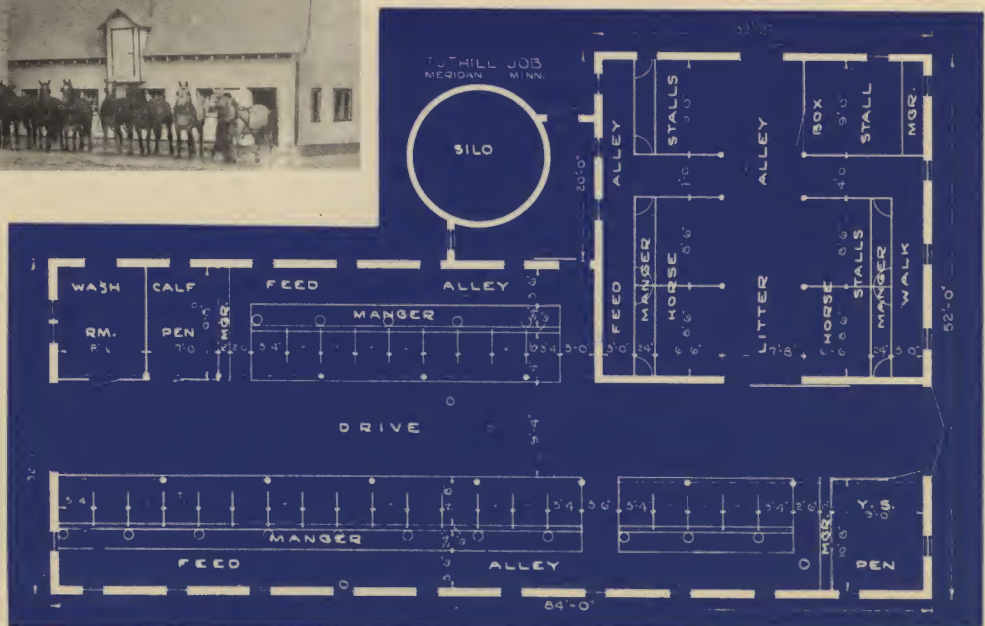
BARN NO. 5284



well repaid for the care we took in making our plans and getting your ideas before we built. It saved us money and we have a much better barn. It would pay every one that builds to visit your sample room."

Plan No. 5284

● John Tuthill is a lover of good horses and good cows. Right after his old barn burned he laid his plans for a larger and better barn than the old one. It is located on the highway between Waseca and Owatonna and he welcomes many visitors to inspect his stock and his barn. It is OLSON equipped from gutter drains to ventilating system.

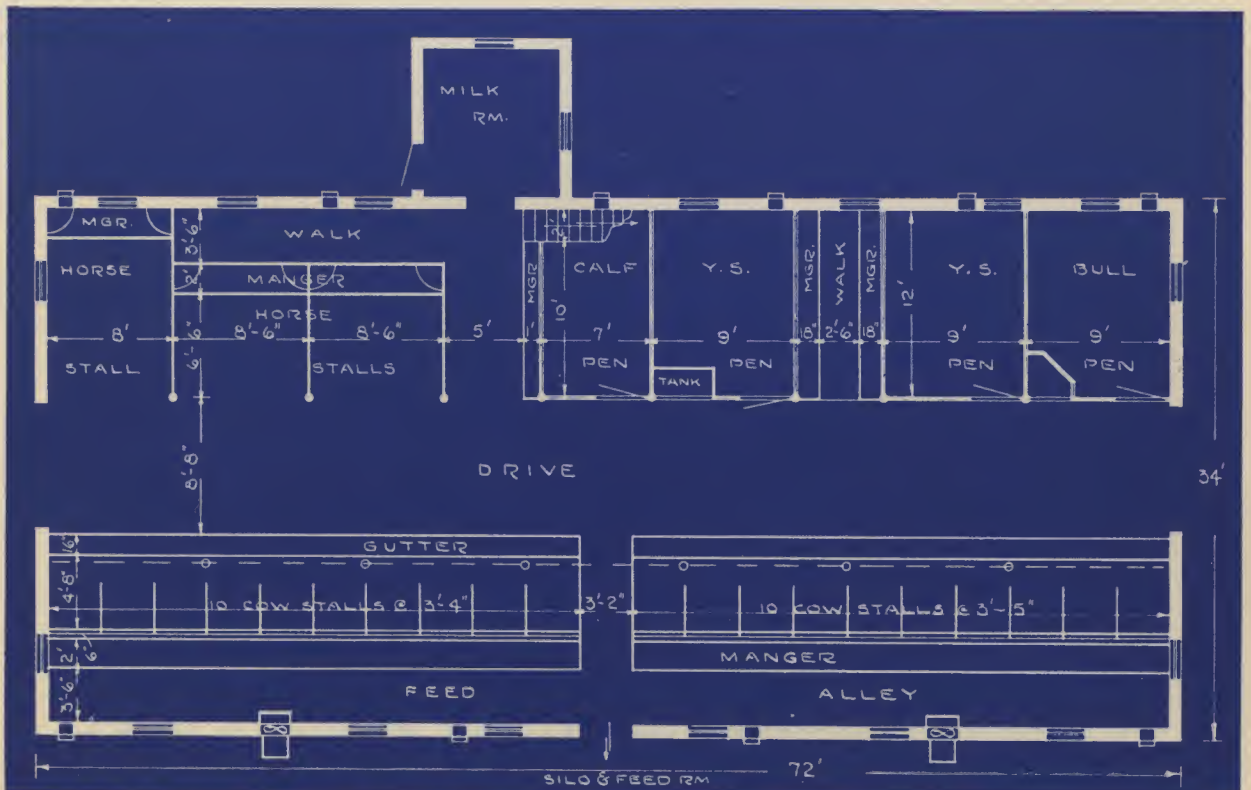


THE OLSON LINE

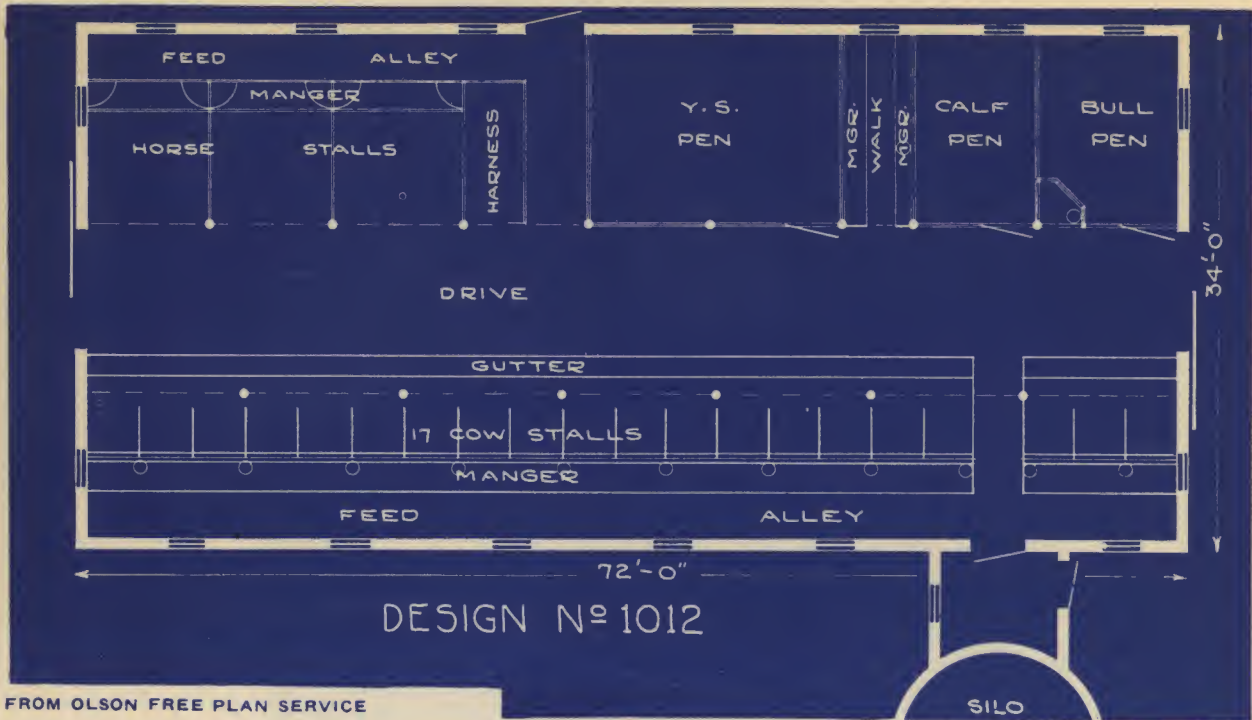


●
A
GOOD
PLAN
WILL
SAVE
YOU
\$

● This barn owned by Mrs. Louise Reim is deserving of mention because of the interior arrangement. This 34-foot barn is known as a driveway barn and shows the typical arrangement of a combination type for horses, feeding, and dairy cattle. The layout of plans is exceptional because she has used the minimum of steel pens which has given her the maximum amount of feeding and floor space.



THE OLSON LINE



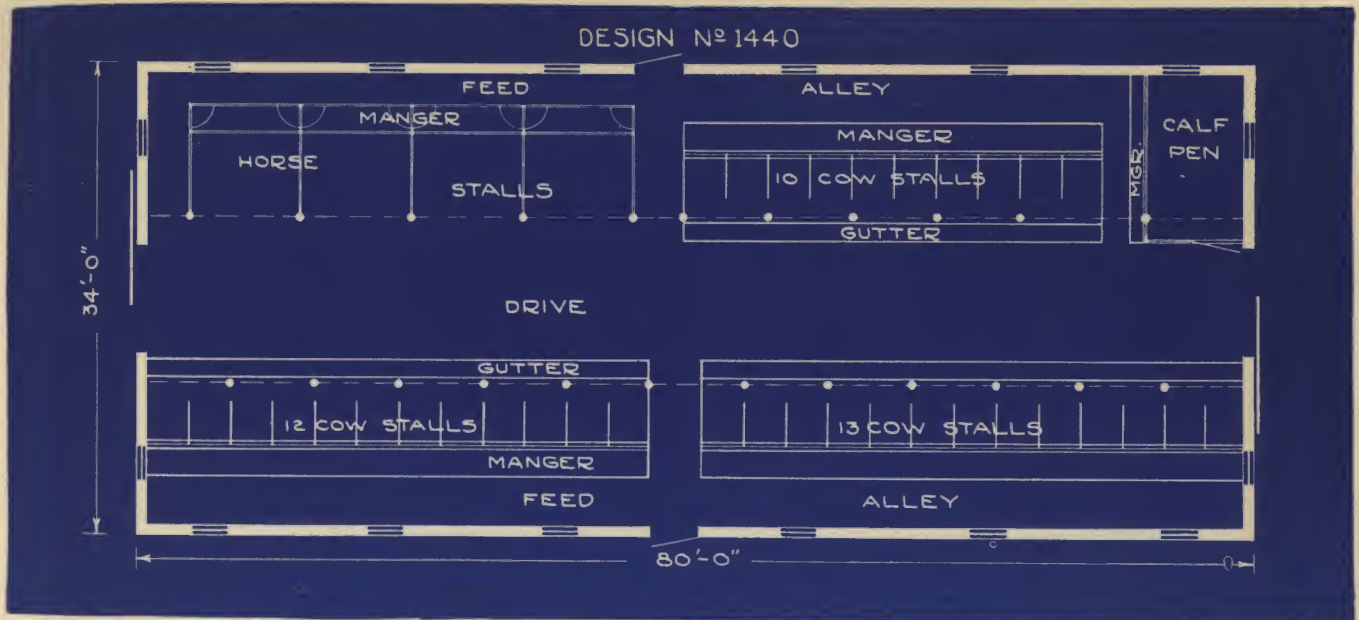
FROM OLSON FREE PLAN SERVICE

Mrs. Bertna Jahnke says, "My Son and I investigated barns a long time before we finally built, and we are very well pleased with the service and equipment we received from the Olson Manufacturing Company. It pays to plan well before you start to build."

This is the so-called bank type of barn, built into a side hill. Olson No. 5 arch stalls with two-way opening stationchions are used, as well as Model O type ventilators without the square base. Note feed chute opening at the left, ventilating windows, and ladder to loft.



THE OLSON LINE



FROM OLSON FREE PLAN SERVICE

This is a splendid general purpose 34 by 80 foot barn for 35 cows, eight horses, and one calf pen. The owner plans to remove the horse stalls later, and replace them with bull, cow, and calf pens, and he will also build a silo. The two gables with windows are attractive and increase the light in the mow. They also help the ventilators take the moisture out of the mow, because when these windows are open it helps create air action.

**OLSON
FREE
PLAN
SERVICE**

**HELPED
ME TO
SAVE
MONEY
WHEN
I BUILT
MY
BARN**



THE *OLSON* LINE



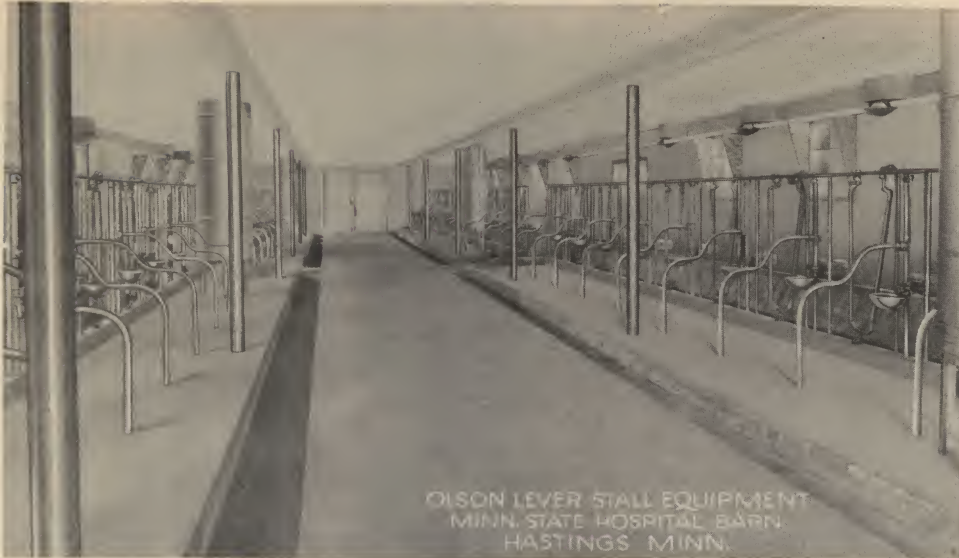
NEBRASKA STATE UNIVERSITY BARN
LINCOLN, NEBRASKA
USES OLSON EQUIPMENT

DURABLE BARNs EQUIPPED WITH DURABLE BARN EQUIPMENT



OLSON EQUIPPED
STATE TRAINING SCHOOL BARN
RED WING

THE *OLSON* LINE



OLSON LEVER STALL EQUIPMENT
MINN. STATE HOSPITAL BARN,
HASTINGS MINN.

WRITE
FOR
YOUR
FREE
PLAN



STATE HOSPITAL BARN, JAMESTOWN, N. DAK.



SANITARY DAIRY BARN
NEBRASKA STATE HOSPITAL
EQUIPPED WITH THE OLSON LINE

THE *OLSON* LINE



● The interesting features of this barn are the "Gandrud Tie Stalls" and automatic gutter cleaner designed and built by Mr. Moody, the owner. This barn is really modern even to milking machine overhead track and radio.



THE **OLSON** LINE



●
**THIS
BARN
AND
OLSON
BARN
EQUIPMENT
WILL
SAVE
YOU
MONEY**

● Anderson Brothers looked and planned carefully before starting the construction of their barn. Note the stringer construction which is different than most jobs. This barn, OLSON electrically ventilated and equipped with OLSON arch lever stalls and steel windows, has been shown to many prospective barn builders by the enthusiastic owners. You, too, will be welcome at Anderson's.

●
**WRITE
FOR
YOUR
FREE
PLAN**



THE OLSON LINE



Barn No. 1213A

This beautiful OLSON equipped barn is 34 feet wide and 100 feet long, owned by Holum Brothers. It was built in 1930, but if you were to visit it today you would think it almost new. Notice hay is taken into barn from both ends through large hay doors.

GEO. PETERSON, Mahanomen, Minn.

S. R. GROTEIA, Red Lake Falls, Minn.



Barn No. 1041A

The hay is taken into this barn through this closed type of gable extension. Hay enters from the bottom. The divided door folds inward and upward.



Barn No. 1513A

The hay door here shown is divided down the middle. The two halves slide apart at a downward angle. Counterweights with cables to the stable make them easy to operate from the stable floor.

Dr. B. B. Sell, Independence, Iowa.



Barn No. 1413A

The hay door in this picture shows offset hinges at the bottom of the door and the doors opens outward from the top and swings down.



Barn No. 1313A

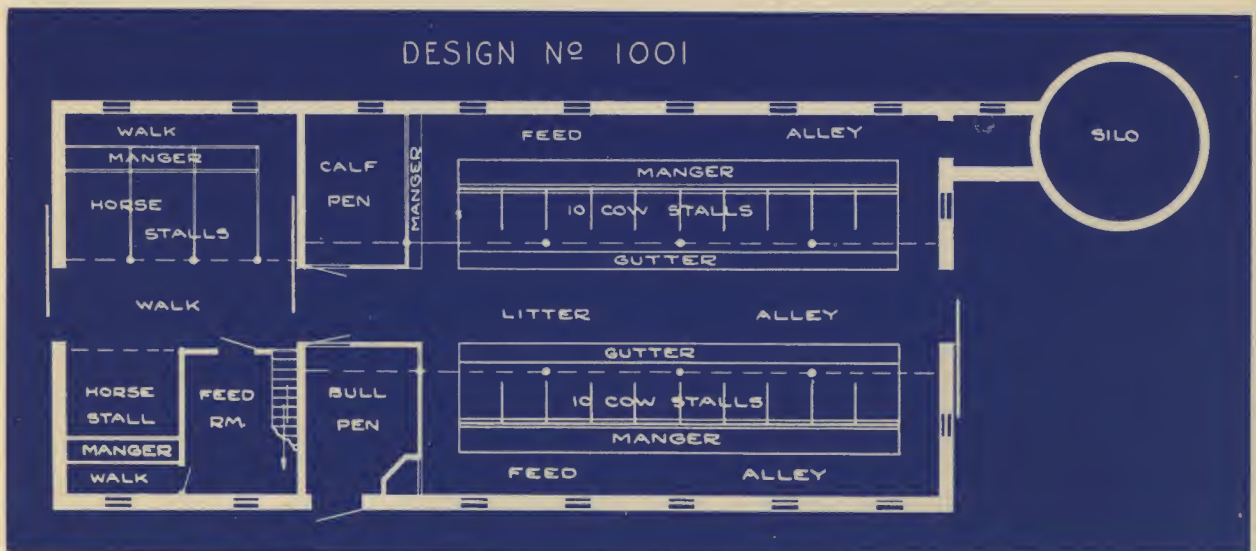
This picture shows the center driveway for unloading hay into the barn. The mow in this barn is divided in the middle.

THE OLSON LINE



This picture was taken back in 1925 when Mr. Olson, Sr., was operating the farm. Now the farm is being operated by the young folks you see in the picture. They say, "Our barn looks almost like new and the equipment seems to be good for at least another fifteen years of service. Dad surely did make the right choice when he selected OLSON Equipment."

● This barn 32 ft. by 70 ft. is designed, planned and equipped throughout with OLSON Stalls, Stanchions, Water Bowls, Hay and Litter Carriers and Ventilating System. This barn has been copied many times by those who visited it before building for themselves. You too can profit by seeing OLSON equipment in use and talking to the owners before equipping your barn.

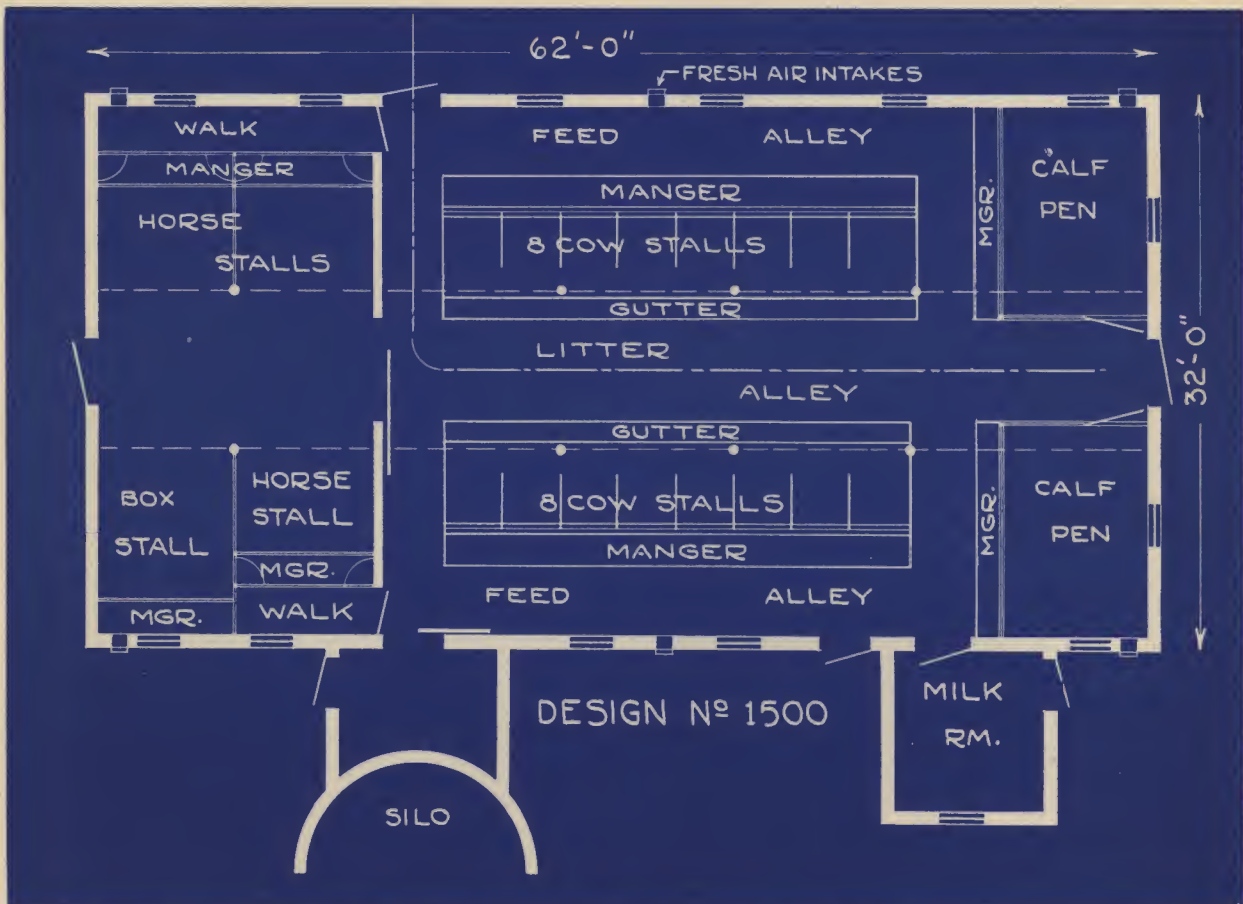


FROM OLSON FREE PLAN SERVICE

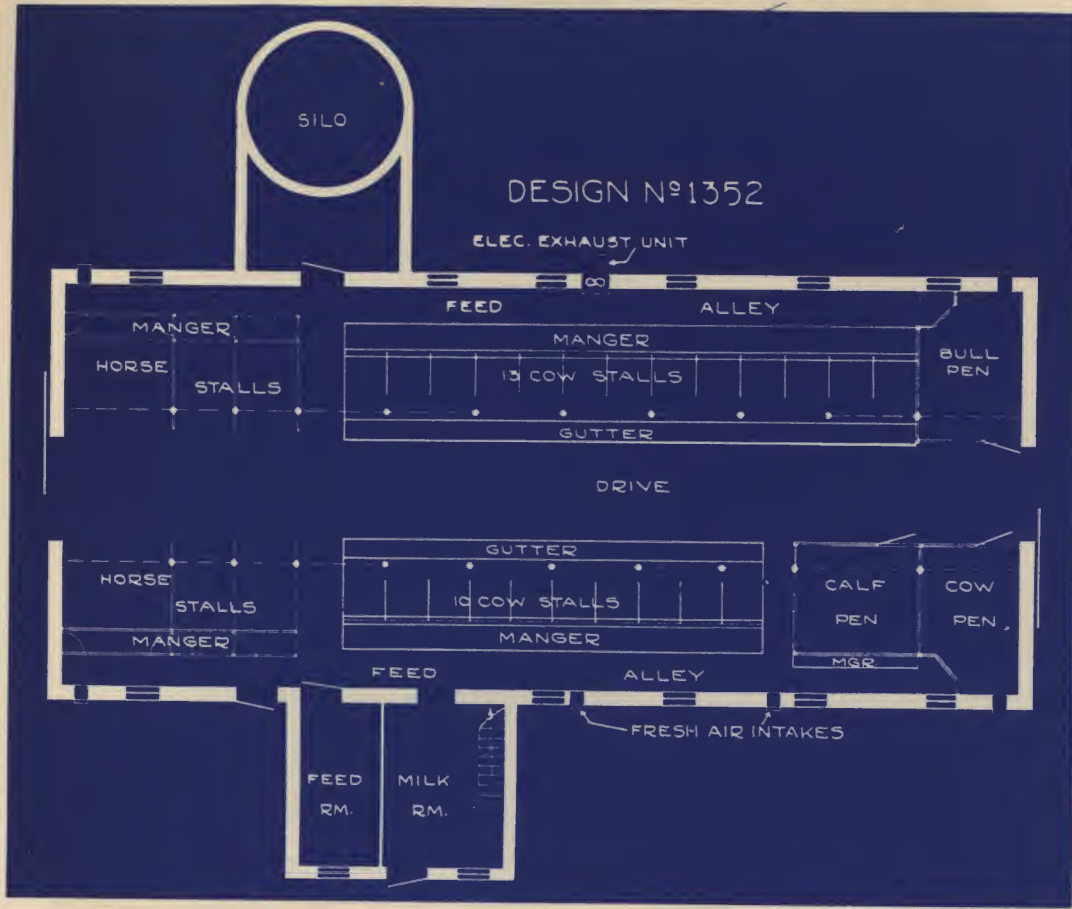
THE OLSON LINE



● This modern dairy and horse barn as planned shows a partition keeping the horse barn entirely separate from the dairy barn. This separation should be considered as it is now compulsory in some localities. Note the well balanced arrangement of the cow stalls and ample room for calves and young stock. Note the construction of blocks up to the bottom of window line. This type of construction prevents the decay of material and is ideal for ventilation, providing the wood wall is properly insulated.



THE OLSON LINE

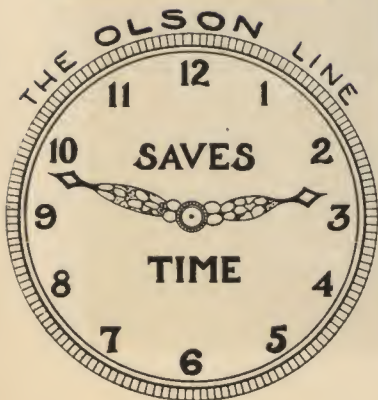


A
GOOD PLAN
SHOWING
ELECTRIC
VENTILATION

FROM OLSON FREE PLAN SERVICE

GET AN OLSON FREE PLAN

BEFORE
YOU
BUILD



THE *OLSON* LINE

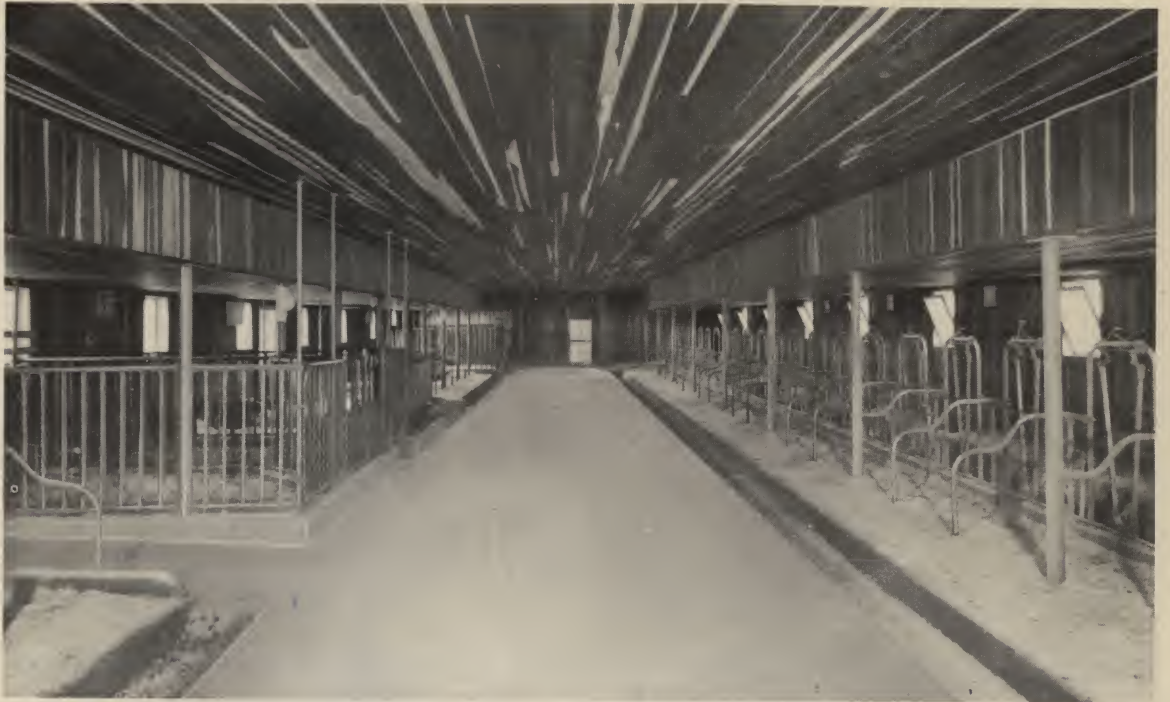


For his new modern dairy barn, Don Stieler has chosen the arch type lever stall with bottom strap fasteners instead of chains. With this type of fastener, a 2 inch higher feed curb is used, which means a considerable saving in feed.

This barn houses thirty high producing Holsteins. You will note that the walls are inner lined and the ceiling is sheathed. The picture was taken before the water bowls were installed, but they are in service now and Don says they have cut down his chore time and production has been increased. This barn is equipped with electric ventilation, and the milk room is built outside the barn with entry through a vestibule.



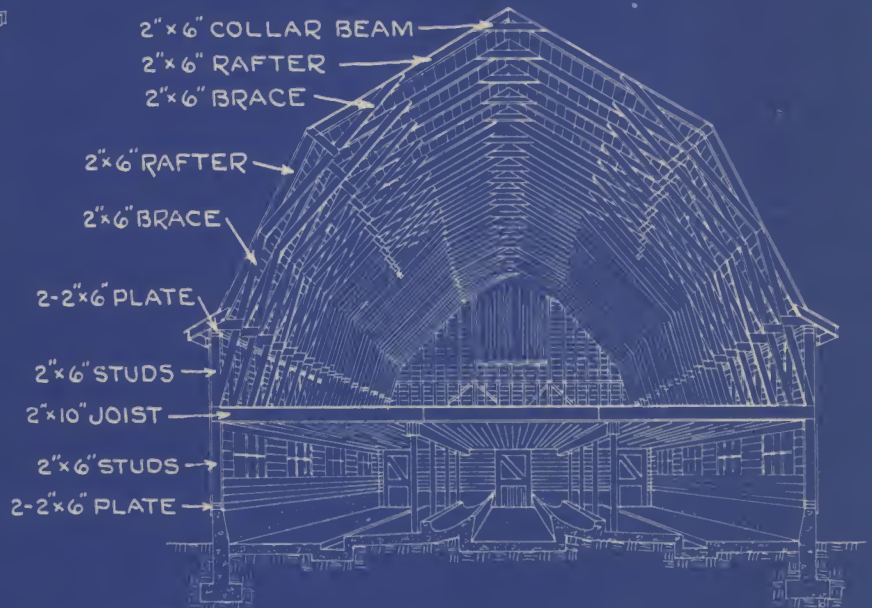
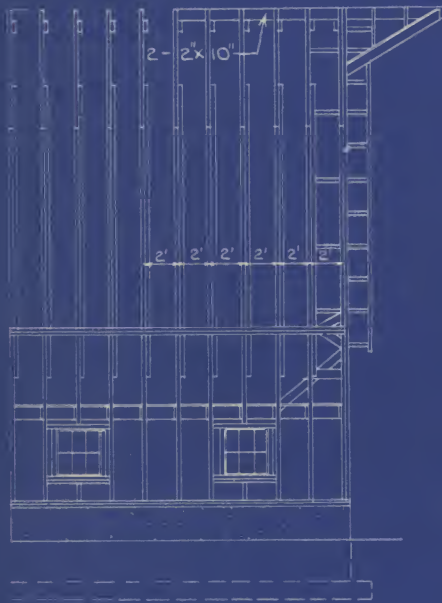
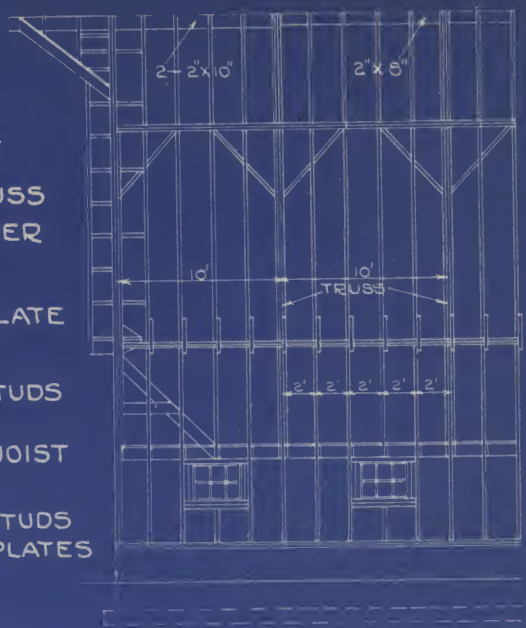
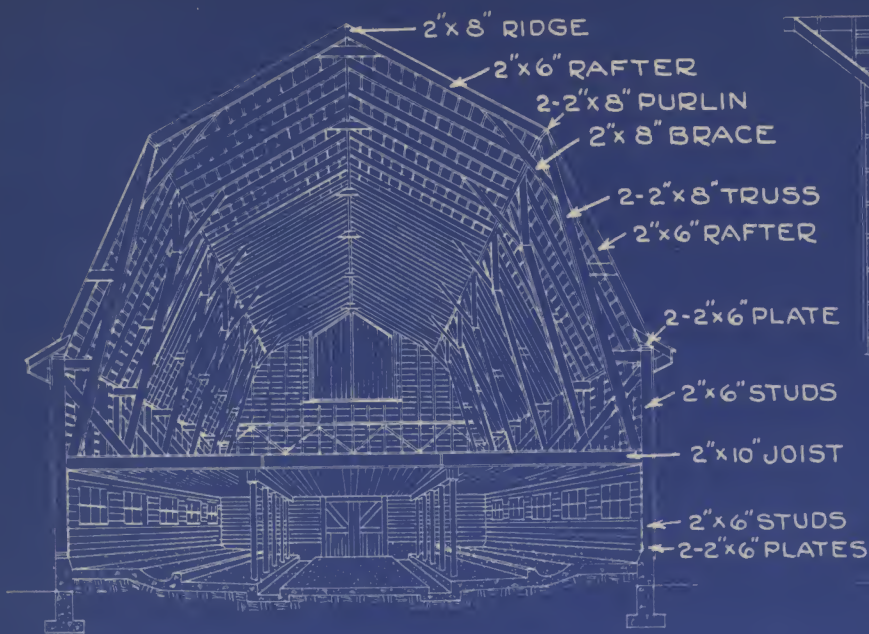
THE *OLSON* LINE



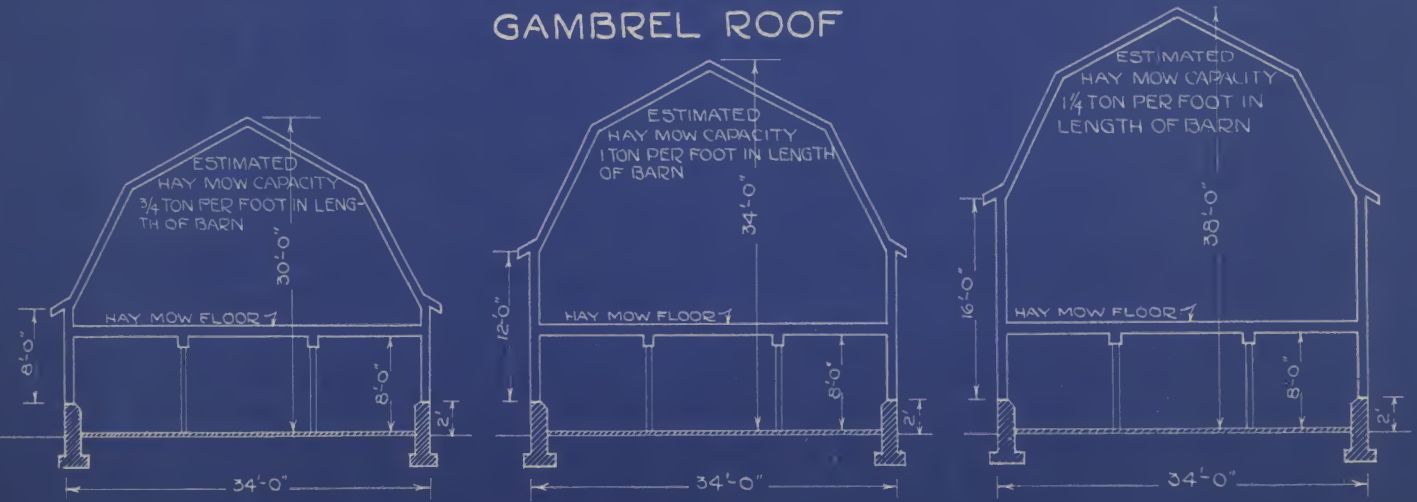
After Mr. DeCoster remodeled his barn he is very much pleased with the appearance caused by sheathing the interior with Redwood as above shown. He further feels that his choice of OLSON Arch Type stalls with two-way stanchions, steel pens, and electric ventilation completed the beauty and service he will enjoy many years to come.



The illustration shown above covers the arrangement of OLSON cow and calf pens, 28 two-way stanchion cow stalls in this barn 32 feet wide and 160 feet long, owned by Sanitary Farm Dairies located between Stillwater and White Bear, Minnesota.



GAMBREL ROOF



Three Good Barns of Different Construction



Built Entirely of Lumber

● All of the material, above the foundation of this barn is of wood construction. In many places lumber is cheaper than masonry for the walls of the stable. If it is properly constructed it makes a very satisfactory barn. The best construction is to use five thicknesses of material on the side walls; siding outside, then heavy building paper, sheeting, insulation material one or two inches thick, then sealing lumber on the outside. Such a barn can be properly ventilated and the walls perfectly dry in the northern latitudes.

One-half Masonry Walls

● The advantage of this type of barn is to keep the lumber sections above the moisture line both inside and outside the barn. The masonry wall is built up to the lower part of the window opening and lumber is used for the rest of the barn. Such masonry walls are not frost proof unless the mortar joints are broken and insulated between the double walls, or otherwise insulated on the inside of the wall.



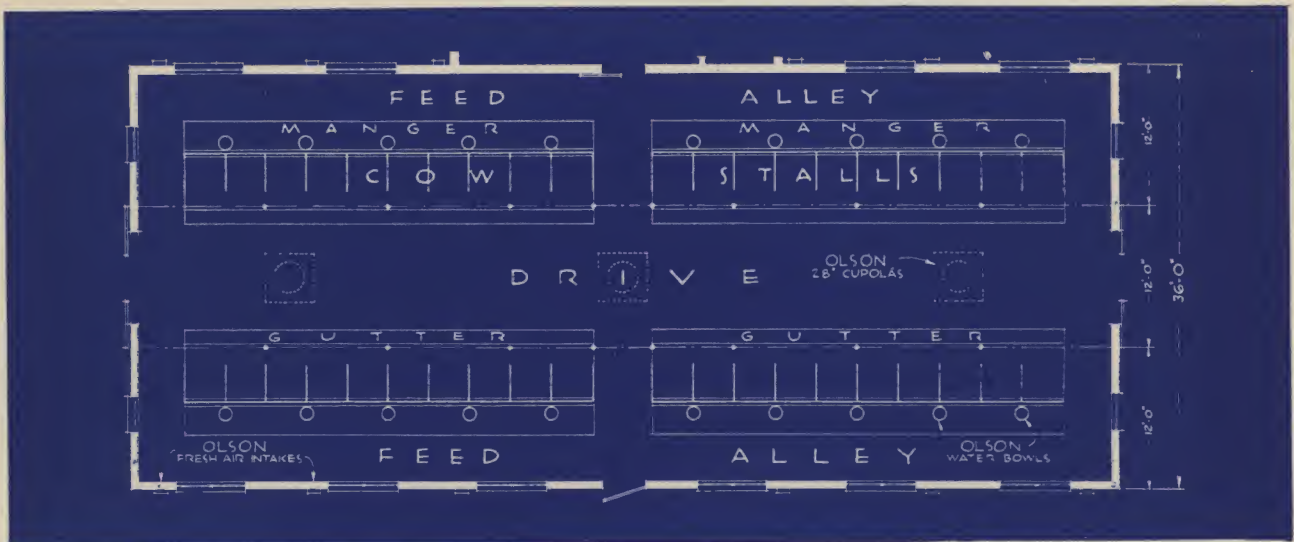
Stable Walls All Masonry



● This is a very popular type of barn construction in many of the dairy sections of the country but many of the older barns were built before the value of insulation was fully appreciated, therefore in the colder climates the walls are covered with frost in the winter time. In recent years this objection has been overcome. If the stable of your new barn is to have a masonry wall be sure that it is properly insulated or you can expect to see them moist in sub-zero weather. Ventilation will eliminate the moisture if the walls and ceilings are properly constructed.

CAUTION—Be sure to insulate the sidewalls just above the plate between the joists.

One-Story Modern Dairy Barn

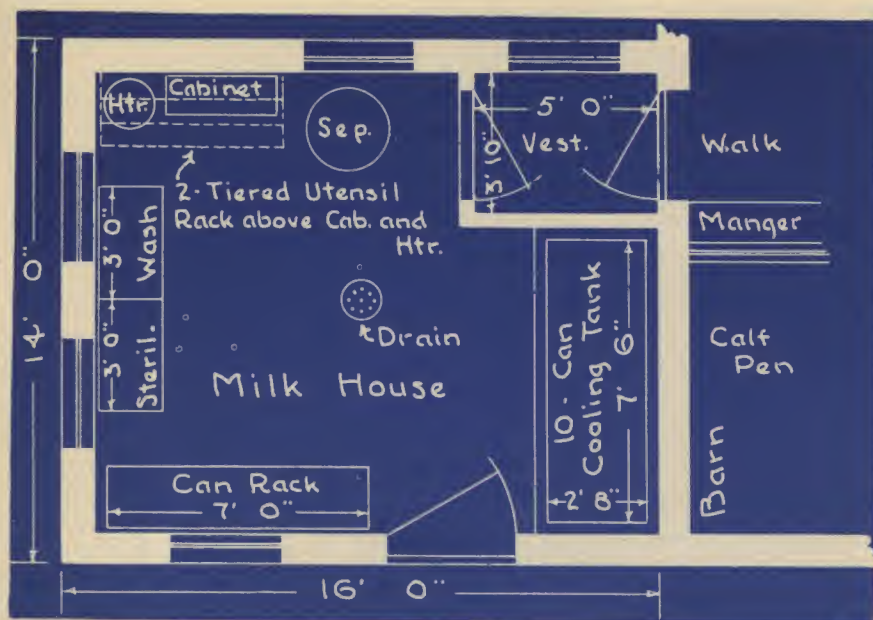


Plan No. 8436



This one-story barn is on one of the "B" Farms, owned and operated by Mr. W. M. Bollenbach, and located near Watertown, Minnesota.

Modern Milk Houses



This milk house plan has been prepared with the assistance of the Minnesota Public Health Department, the Minnesota Department of Agriculture, and the University of Minnesota. A milk house can be one of the most important factors in producing good milk if it is properly constructed and large enough.

The milk house should be near the barn, so the milk can be taken immediately to this room for straining and cooling. It is better attached to or a part of the barn, but it must have tight walls and be separated from the stable by a

vestibule with self-closing doors at least 5 feet apart. Vestibule, porch, or covered passageway should be so located that traffic does not pass through the milk room. If not attached to the barn, a vestibule is not necessary. The milk house should be located on the side of the barn away from the barnyard. Keep in mind also the water supply, drainage, and convenience in loading out milk.

The walls and ceiling must be smooth and painted to make them easy to clean. The room should be well lighted, the window space should not be less than 10 per cent of the floor space. Windows, outside door, and the ventilator should be screened. Some heat will be necessary, so a chimney should be provided unless you plan to use an electric heater thermostatically controlled.

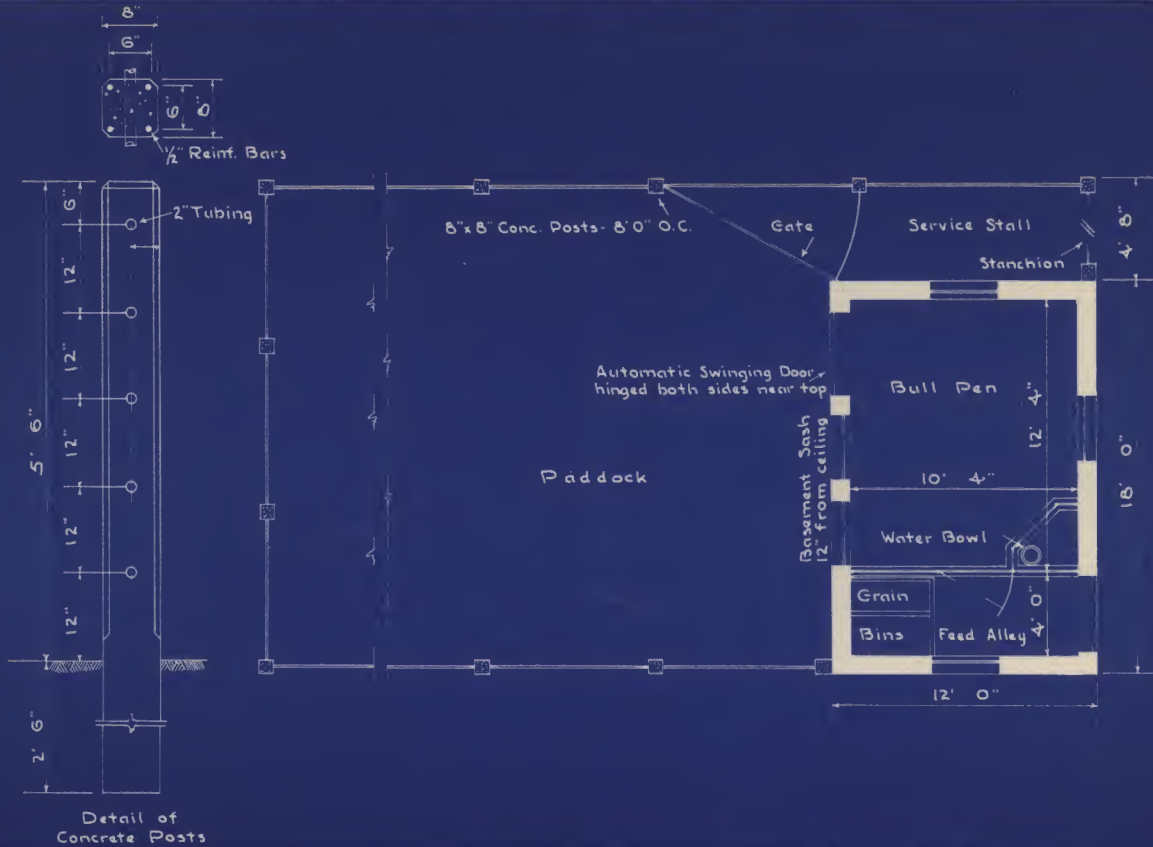
If the milk house is of frame construction, the concrete foundation should be extended up the wall at least 22 inches. The conjunction of the floor and walls should be curved and the corners rounded to avoid corners that collect dirt. The ceiling should be covered with at least 6 inches of loose insulating material, and insulation is also essential in the walls.

Every milk house should have a cooling tank big enough to handle both night and morning milk during peak production. If you wish to reduce the capacity of the tank, deduct 1 foot 6 inches from the length for each two cans.

The picture shows the other type of milk house which is entirely separate from the barn. This modern milk house and dairy barn is located on one of the "B" Farms, near Watertown, Minnesota. The owner is W. M. Bollenbach, St. Paul.



Bull Barn and Paddock



Many dairymen prefer to house their Herd Sire in a separate building. The floor plan shown seems to be a popular one, because it has the necessary safety arrangements as well as space for feed storage. The steel equipment has a gate and a corner manger with an adjustable two-way stanchion operated from outside the pen. This stanchion is rigid and will hold the bull so you can enter the pen safely.

Even though you have a good bull pen, it is necessary that you have a paddock too, because no bull will be content or healthy unless he has the proper amount of outdoor exercise. The size of the paddock depends on the available space, but in some cases it is up to 20 by 80 feet. Many good breeders install within the paddock a steel post, to which they attach a concrete ball from a bracket, so that the bull will have something to work on.

It is essential to build a service stall as shown on the illustration, in connection with the paddock. Small heifers can then be serviced with a large bull safely and without injury. It should be built so that the gate can be swung from its original latched position on the paddock to latch on the corner of the building for safety purposes.



With this type of bull paddock the Herd Sire has the advantage of ample exercise out doors, yet he is safely confined behind strong concrete posts and pipe rails. Method of casting pipes into concrete posts is illustrated at the right. Note the automatic swinging door hinged near the top, permitting the bull to go out and in as he pleases. This is a practical type of door for any building, and is shown in the floor plan above. Pictures by courtesy of Portland Cement Association.

Olson Litter Carrier Equipment



The OLSON Bridge and Swinging Crane is one of the most practical devices when used in connection with your litter carrier. The Crane may be swung from one side to the other in a semi-circle, giving a greater dumping area than a rigid track system supported by posts or arches. It also makes it possible to dump the litter farther from the building.

In many cases the barn is not high enough to support a crane only. Then a combination of bridge and crane can be used to splendid advantage.

All strain is removed from the barn when a bridge and crane is in service.



Bridge and Crane Installation Using a Steel "A"



Installation of Wood "A" Made of Native Material

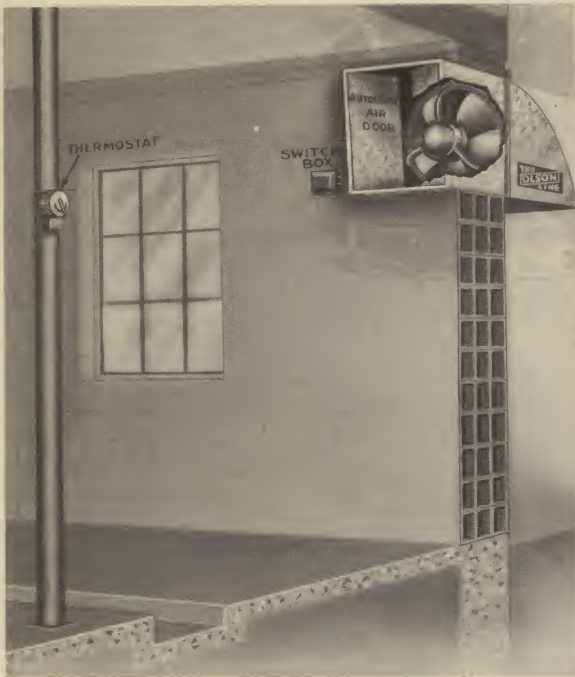


Swinging Crane or Boom Attached Directly to the Barn



Installation Using Steel Arch Track Support

Automatic Electric Ventilating Systems



PATENT APPLIED FOR
FIG. E. B. 16

The **OLSON** Automatic Electric Ventilating System is composed of three parts: The foul air exhaust unit, thermostat, and the fresh air intakes.

The foul air outtake unit is comprised of an insulated metallic box, which is fully described on the opposite page.

The fan of this unit is controlled by a thermostat. When the temperature in the barn rises, the fan automatically starts and the operation of the fan pulls the fresh air into the barn through the intakes. When the temperature in the barn falls, the fan automatically shuts off and the doors of the outtake unit close.

The fresh air intakes are illustrated and described on page 41.

The foul air outtake unit is usually placed near the ceiling in the side wall of the barn, preferably on the longest wall of the south or east side of the barn.

There are no bothersome flues passing through the hay loft, no ducts or obstructions in the stable to get broken or bent.

The **OLSON** Automatic Ventilating System conforms in simplicity, durability, economy and efficiency in its design to all other **OLSON** products. All of the various parts of the system come to you completely assembled, as shown in the above picture. This makes it easy and economical to install, and their efficiency is vouched for by many users.



Figure A

Figure A shows the location of the EB16 exhaust unit just below the joist near the ceiling of the barn. This is the way the unit looks on the inside wall of the barn with the automatic air doors closed to prohibit back draft when the fan and motor are not in operation.

Figure B shows the same exhaust unit with the fan in operation and the automatic doors drawn open by the suction of the fan, permitting full capacity for the flow of moisture laden foul air.

The reason the exhaust unit is located near the ceiling is because the warm air is lighter and carries the most moisture. Therefore, the air with the highest moisture content is near the ceiling, and can be removed faster and with greater economy in this manner than if there is a metal stack or duct run to within 18 inches of the floor.

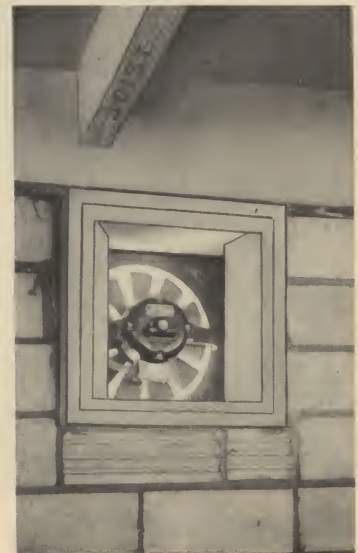
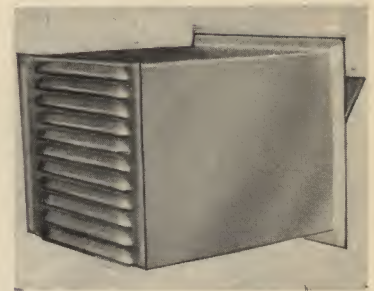


Figure B

Automatic Electric Ventilating Systems



The illustration at the left shows the exhaust unit and fresh air intake in their proper location. The hood shown over the exhaust unit is used to break heavy winds which would otherwise blow directly into the unit.



Fresh Air Intake

The exhaust unit is easily installed in any type of wall. Leave an opening 22½" wide by 24½" high, and slip the unit in the wall from the outside. It will fit any wall from 6 to 13 inches in thickness.



This shows the interior view of the Fresh Air Intake installed in a block wall.

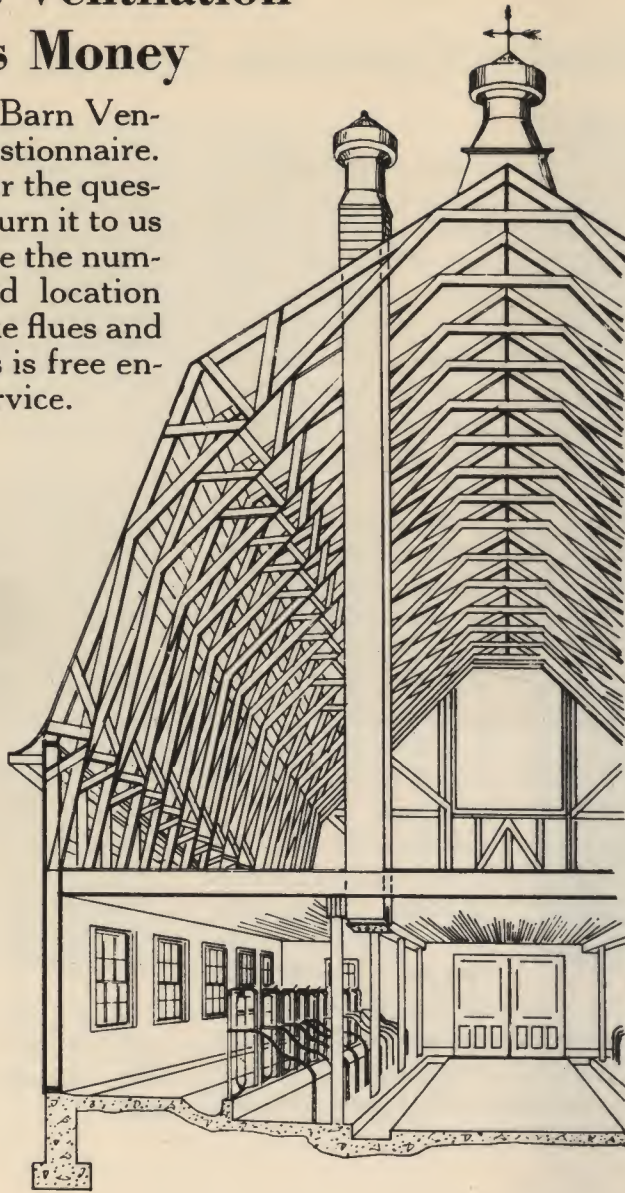
fresh air taken into the barn under varying wind pressure. This intake is always 10 inches high, 12 inches wide, and 13 inches long. It fits any type of wall from 6 to 13 inches thick, and is in every case installed flush with the inside wall.

The illustration at the right shows the complete installation of exhaust units and fresh air intakes. The exhaust units have no connection whatsoever with the ventilators which are shown on the roof.



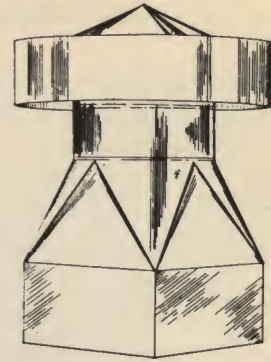
Efficient Ventilation For Less Money

● Write for Barn Ventilation Questionnaire. If you answer the questions and return it to us we will figure the number, size and location of all out-take flues and intakes. This is free engineering service.



FLUE VENT CAP

V-20 FLUE VENT CAP



● **OLSON V-20 Flue Vent Cap** is made of heavy copper bearing galvanized steel and is rain-proof. It is scientifically designed to prevent down draft even in adverse wind currents. Flue is 20 inches in diameter and the base is 24" x 24" square. It makes a splendid ventilator or cap for wood exhaust flues. It is frequently used as a ventilator on hog and poultry houses.

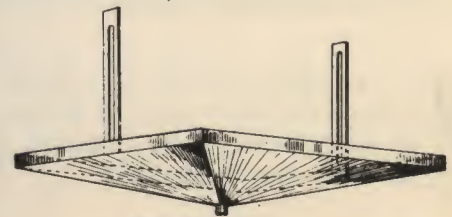


FIG. D. D. 16

● The **OLSON** Line again shows leadership in the Barn Equipment field by offering a more economical, simplified ventilating system for cow barns and its rapidly growing popularity with the dairy farmers speaks well for its greater efficiency.

Ventilating engineers generally agree that a straight out-take flue, properly constructed, has greater efficiency than a crooked flue. They also agree that a built up wood flue is more practical and can be built with greater economy than a good well insulated metal flue.

It is now possible for every dairy farmer to have a well ventilated stable at a very low cost.

The only metal part necessary in the proper construction of this type of out-take flue is an **OLSON** Fig. V-20 ventilator on the top and an **OLSON** Fig. DD-16 damper and drain at the bottom of the stack.

Upon request, we will furnish free the details for the construction of the stack.

FLUE DAMPER AND DRAIN

● The **OLSON** Flue Damper and Drain is a very necessary part of all wood ventilating flues. Moisture will come down the flues and into the damper pan which is provided with a 1/4-inch nipple to which a pipe can be attached. This prevents moisture from dropping on the animals nearest the bottom of the stack. It also serves as a damper. Bolts and spring tension bushings not shown in the illustration come with this damper and work slidably in the slotted bars shown in the illustration.

Shed Type Poultry House



The shed type poultry house is a very popular one with all poultry men since it is less expensive to build and is easier to ventilate because of the low ceilings. Every house should be well insulated and properly ventilated, either with a syphon or electric system. Even a well built house will be damp if not ventilated correctly. Satisfactory results from your poultry house will largely depend on a properly designed and installed ventilating system, and on well constructed and insulated walls, ceilings, and floors. Furthermore, enough birds must be housed to produce sufficient animal heat or artificial heat must be provided.

Two-Story Poultry House



A two-story house is used where there is a limited acreage and the poultry man wishes to operate on a large scale. This type of building is constructed for less than the one-story type, when figured on a cost per bird basis.

The building shown is 34 feet long, 18 feet wide, and it houses approximately 450 birds. The outer walls are made up of two thicknesses of board with building paper between them. The inner wall is $\frac{3}{4}$ inch insulating board, and the space between the in-

ner and outer walls is fully insulated. The ceiling also is covered with insulating board.

The syphon type ventilating unit in operation works very favorably because of the high elevation of the roof ventilator. A 24 inch ventilator is used with a 24 inch metal out-take flue, which extends from the ventilator down into the lower story. This flue is equipped with a special damper and baffle plate for the upper floor, and a regular damper for the lower floor, which makes it easy and positive to operate. Only two fresh air intakes are visible, but there are five used on each floor. The windows in the front are made in such a way that they can be tilted in at the top if necessary. If your building is larger, more ventilation will be required.

Modern Hog House and Equipment



The above hog barn is on one of the "B" Farms, owned and operated by Mr. W. M. Bollenbach, near Watertown, Minnesota. This building is electrically ventilated, and in addition to the fresh air intakes there are windows that tilt in. The lower portion of the walls is of concrete blocks, while the remaining part is of wood. This building is insulated between the outer and inner walls.

You will note in the illustration below that the doors which are used by the hogs are manually operated by means of sash cord. Note also that these doors can be slightly raised, permitting the little fellows to go in and out as they please. The partitions are made so that they can be swung up out of the way conveniently, making one large feeding pen.

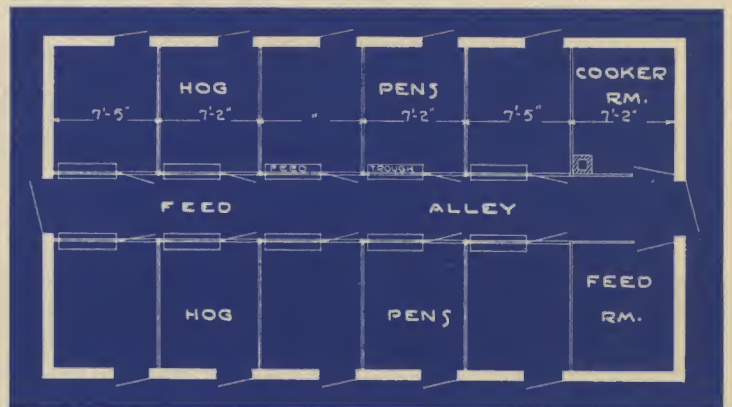


Modern Hog House and Equipment

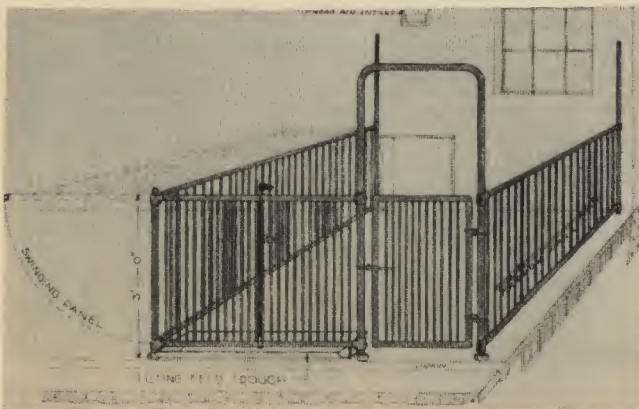


The two story hog house is a popular type, especially now that electric ventilation is possible because of the REA, as it eliminates the necessity of foul air flues. The second story also provides a wonderful place for the storage of bedding and feeds of all types, making it very convenient at chore time. The building illustrated has a double wall built of two 4 inch blocks, having a 2 inch cavity between them for insulating purposes. The electric ventilation consists of a 16 inch fan built into an insulated exhaust unit having automatically opening and closing doors, as well as seven fresh air intakes. The walls of this building are perfectly dry during the winter months.

In making your plan for a hog house the pens should be about 7 feet wide and 8 feet to 10 feet long. The alley between pens is usually about 4 feet wide. **OLSON** standard pens are designed 7 feet 2 inches wide. This size gives proper room for a 4-foot cast iron trough and regulation size gate with arch. The length of the pen is not standardized and is made to suit the building but the 8-foot pen gives the sow ample room.



FROM OLSON FREE PLAN SERVICE



OLSON Steel Hog Pens are necessary equipment for the best hog house. The cast iron steel trough that tilts into a vertical position for cleaning by means of the operating lever is an outstanding feature. The dividing pen partitions can be provided with hinges to be swung up after the farrowing season and the feeding can be done in the barn. Farrowing rails are provided to protect the little pigs in the nest. These pens make the barn light and do not interfere with free circulation of the air. An **OLSON** equipped and ventilated hog barn is a joy to its owner.

THE OLSON LINE



BARN NO. 2010

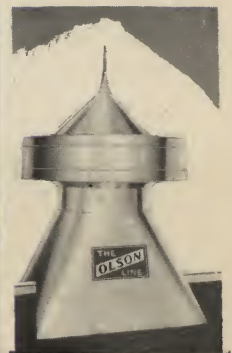
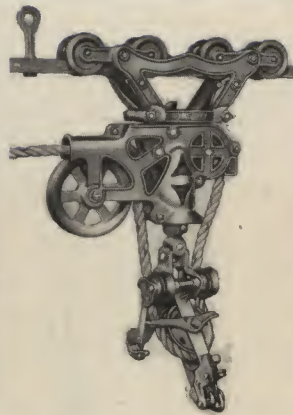
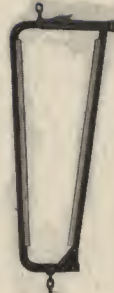
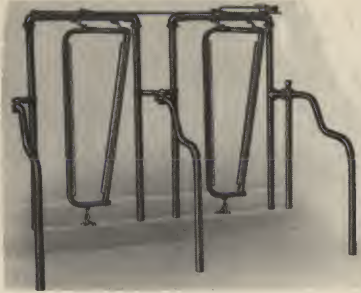
● Such a fine stable as is here illustrated calls attention to the rapidly growing interest that is being shown in saddle and harness horses. This widespread interest has created a demand for better stables and better stable equipment. The stable here shown is one of the best in Southern Minnesota and visitors are always made most welcome. Owner, Carl S. Jacobson of Albert Lea. Architect, Karl Waggoner, Mason City, Iowa, and equipment by the OLSON Manufacturing Company.



FROM OLSON FREE PLAN SERVICE



MAIN OFFICE AND FACTORY





OLSON MANUFACTURING COMPANY

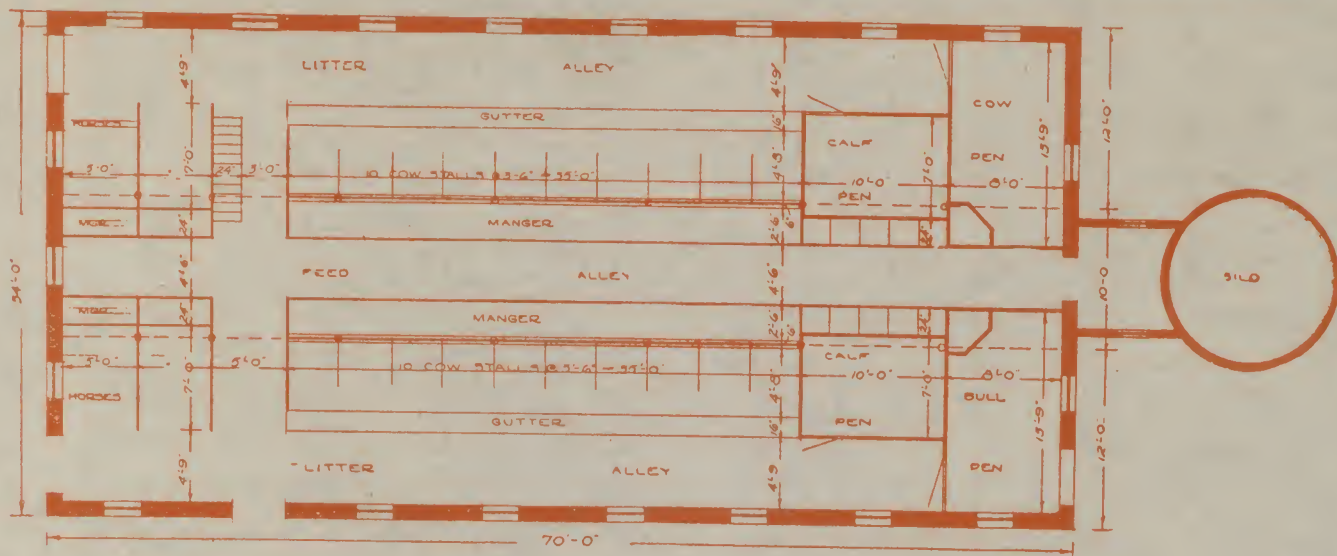
Albert Lea, Minnesota

No. BB5-47



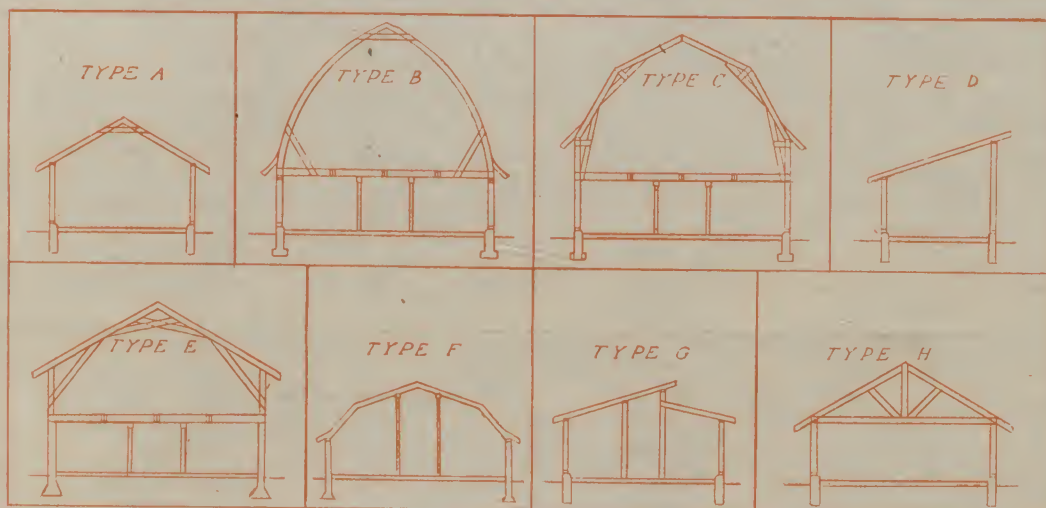
FLOOR PLAN

An OLSON Floor Plan for Combination Horse and Cow Barn—Animals face in



1. Can supporting posts be moved.....
2. In which direction? N-S or E-W.....
3. Height of foundation wall from floor.....
4. Height from floor to under side of joists.....

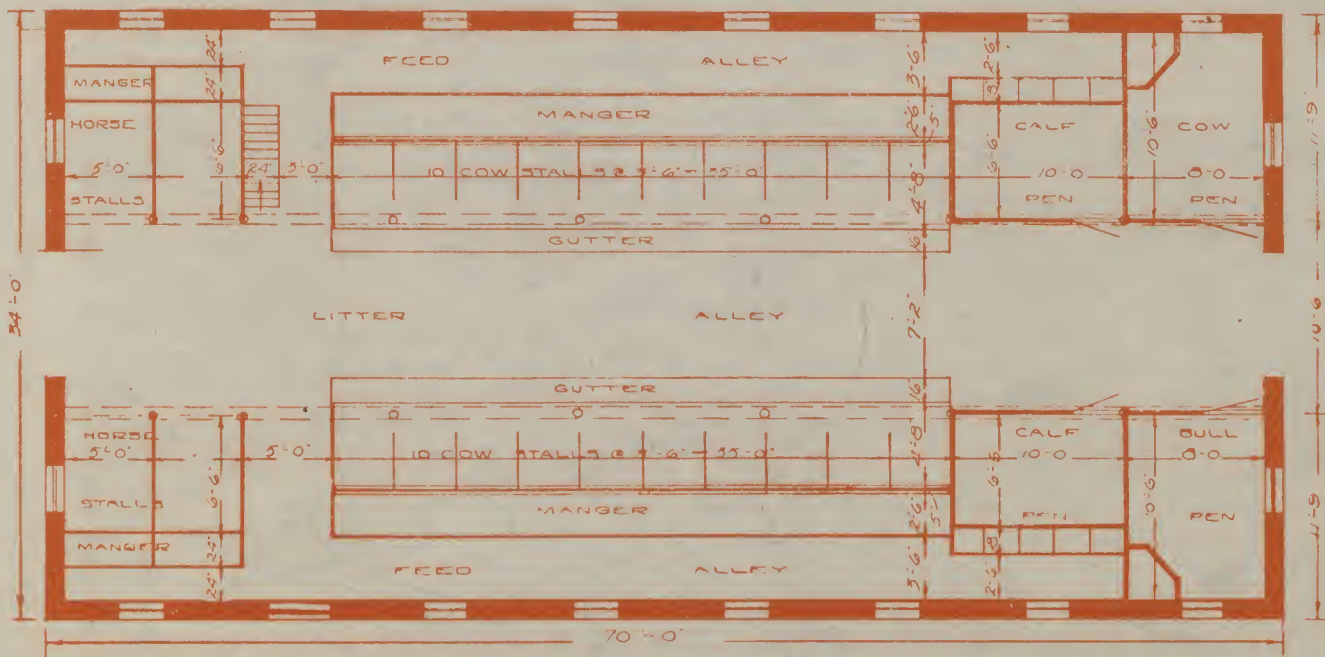
Mark X on the type of Building in which you are interested

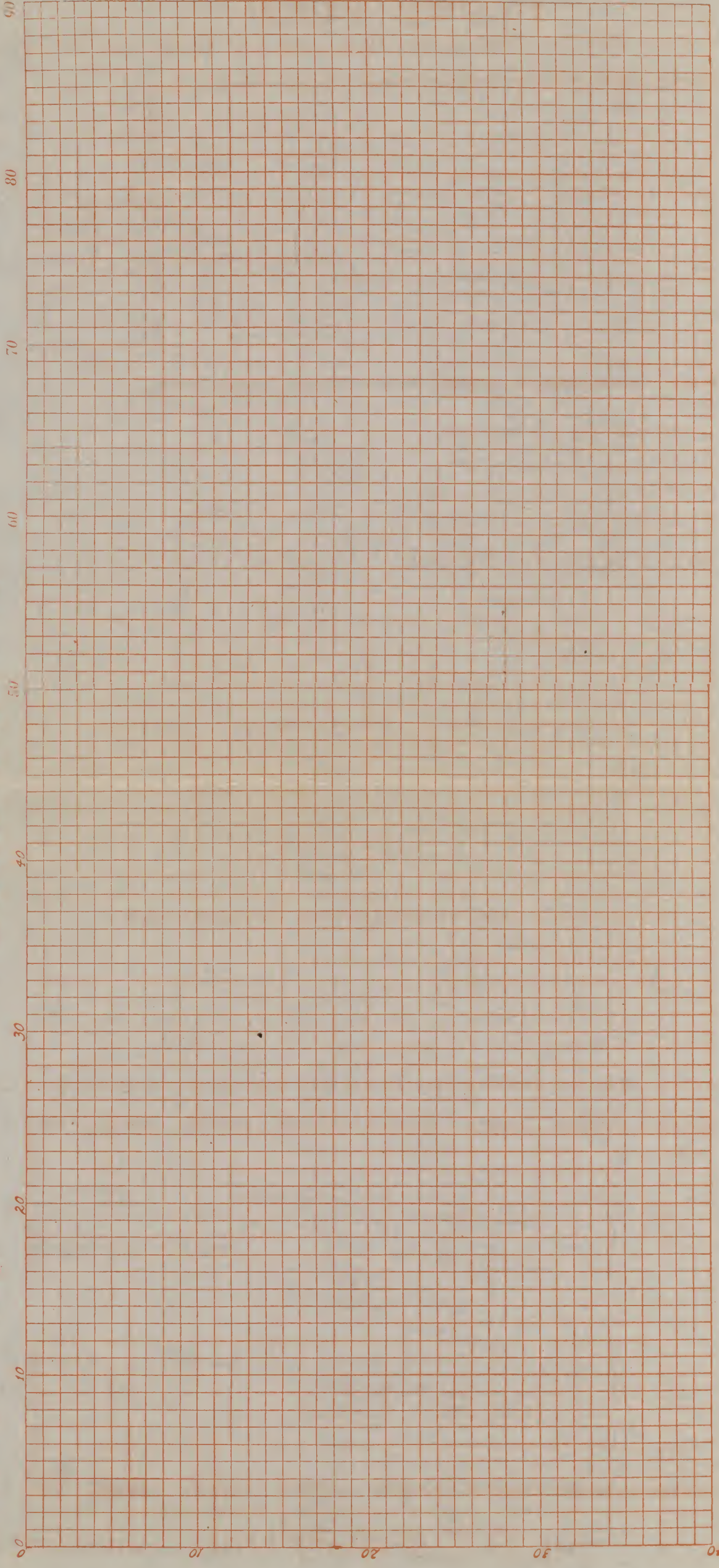


PLEASE GIVE US THE FOLLOWING INFORMATION

5. Height from mow floor to plate.....
6. Height of entire barn from floor to peak.....
7. If ventilation is wanted we will send you a special ventilation sheet upon request.
8. Do you have electricity..... Home Plant..... High Line.....

An OLSON Floor Plan for Combination Horse and Cow Barn—Animals face out





DRAW FLOOR PLAN OF BARN ON THIS SHEET. EACH SQUARE REPRESENTS ONE FOOT

- 1. Is this a new barn or remodeled
- 2. When are you going to build or remodel
- 3. Give total inside length Width
- 4. Kind of walls and thickness
- 5. Show size, kind and location of posts.
- 6. Number of cow stalls
- 7. Number of horse stalls Single or double
- 8. Pens wanted. Bull Cow
- Young Stock Calf
- 9. Show litter carrier track if wanted.

Name

Town

State