AGRICULTURAL ENGINEERING
Sub-Project 11.

Farm Structures

OBJECT:

1. To enable the farmer to secure the best type and design of farm structure for the money expended.

2. To promote better farm buildings both from the architectural as well as utility standpoint.

IMPORTANCE: Farm buildings in the state increased in value from $268,080,748 in 1920 to $286,136,184 in 1925. This department's plan service will assist the farmers to get the most out of the approximately three and one-half million dollars expended annually in farm structures.

PLAN OF WORK:

The Agricultural Engineering Department will:

1. Prepare new plans for farm structures as rapidly as possible.
2. Cooperate with the Division of Agricultural Engineering, U. S. Department of Agriculture by using as many plans designed by that office as are adapted to Virginia conditions.
3. Prepare a mimeograph booklet listing all available plans.
4. Rewrite Poultry Housing Bulletin.
5. Prepare circulars for construction methods to supplement plan service.
6. Cooperate with Portland Cement Association in giving county agent assistance with concrete problems.
7. Supply county agent with plans, bulletins, specifications, bills of material, etc.
8. In cases of community projects, such as packing houses, storage houses, fair buildings, etc. Give field assistance.
9. Secure the cooperation of all interested agencies, such as lumber dealers and manufacturers, contractors, architects, etc.

The County Agent will:

1. Promote the project in the county by distributing the publicity material supplied by the department.
2. Make efficient use of plan booklet and send to the department for plans needed by the farmers.
3. Keep a record of the farm buildings constructed in the county, costs, alterations made in plans, etc.

RESULTS: Results will be measured by number of plans furnished, new buildings constructed, old buildings remodelled, etc.

Extension Circular-E-281 9641-1

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF VIRGINIA

Va. Agri. and Mech. Col.
and Poly. Inst. and the
U. S. Dept. of Agri.
Cooperating

EXTENSION SERVICE
AGRICULTURAL ENGINEERING DEPT.

LIST OF FARM BUILDING PLANS

For a number of years the agricultural engineering department has been preparing and sending out plans for all types of farm structures. These plans are the best designs obtainable and adapted by actual use to Virginia conditions. All plans embody the advice of specialists in every line concerned. In addition to plans prepared by this department, a number of plans are listed that have been prepared by the Division of Agricultural Engineering of the United States Department of Agriculture.

These plans are free to the farmers of Virginia. As the cost of preparing these plans is considerable, it is requested that only plans that are actually needed be asked for. If a plan is needed for a type of structure not listed, write for information, as new plans are constantly being prepared. Several plans for modern farm homes are now in preparation. A number of plans are also on file that are not listed here.

Ordering Plans

When ordering plans, specify the kind of building and the plan number. For example--if a farm house is wanted and plan A-1 seems to fill the requirements, write the department asking for Farm House Plan, No. A-1.

Address all correspondence and requests for plans to--Agricultural Engineering Department, V. P. I., Blacksburg, Virginia.

LIST OF PLANS

FARM HOUSES

Plan No.

A-1 A seven room semi-bungalow, 26' x 28'. Furnace room, wash room, and vegetable cellar in basement. First floor--living room, dining room, kitchen, office or bedroom. Second floor--three (3) bed rooms and bath. Ample closets on both floors.

Plan No.

A-2 Six room farm cottage, 24' x 26'. Two stories. First floor--living and dining room, kitchen, wash room and laundry. Second floor--three (3) bed rooms and bath, sleeping porch. Basement--furnace room, vegetable room and large room.

A-3 Small farm cottage. One story, 22'-6" x 32'-4". Two (2) bed rooms, bath, large combination living room, dining room and kitchen. Storage cellar and wash room in basement.

A-4 Small one story farm cottage, frame construction, 24' x 32'. Two bed rooms, kitchen, combination living and dining room. Screened porch at one corner. Cistern in basement.

A-5 Farm tenant house, one story, frame construction, 28' x 30'. Two bed rooms, kitchen and back porch.

A-6 Five room, two story farm house, frame construction, 24' x 30'. First floor--kitchen and dining room combined, living room, hall, front and rear porch. Second floor--two bed rooms, bath, hall closet.

A-7 Seven room, two story farm house, frame construction, 28' x 30'. First floor--living room, dining room and kitchen. Second floor--four (4) bed rooms and bath. Basement.

A-8 One story frame construction. 29' x 50'. Combined living and dining room, two bed rooms, bath, kitchen, wash room and laundry, living porch, small entrance porch, cellar with furnace flue.

A-9 Two story frame construction. 23' x 25'. Combined living and dining room, kitchen, wash room, and laundry in first story. Three (3) bed rooms, bath and sleeping porch in second story, cellar with furnace flue, large front porch.

A-10 One story frame construction. 28' x 36'. Living room, dining room, kitchen, bath, two (2) bed rooms, sleeping porch, small cellar for furnace, storage cellar, front porch, rear screened porch.

A-11 One story frame construction. 25' x 30'. Combined living room and kitchen, two bed rooms, bath, enclosed rear porch, front porch, cellar with furnace flue, (alternate plan, living room, combined kitchen and dining room, one bed room, bath, enclosed rear porch, front porch, cellar under part of house, no furnace flue.)

A-12 One story frame construction. 18' x 30'. Combined living room and kitchen, 1 bed room and bath, front and rear porches, no cellar, concrete foundation.

A-13 One story frame construction. 25' x 25'. Living room, combined kitchen and dining room, 1 bed room, front porch, bath room and rear porch designed to be built with the house or as an addition. No cellar, concrete foundation.

A-14 One story frame construction. 20' x 32'. Combined living and dining room, kitchen, 2 bed rooms, no cellar, pier and girder foundation, fireplace.

Plan No.

A-15 One story frame construction. Living or recreation room, dining room, kitchen, cook's bed room or store room, wash room, shower bath, toilet, lavatory and lockers, front porch, cellar 11' x 12' for stores, concrete foundation, gable roof, heated by stove or fireplace. Approximately 22' x 42' with 6' x 19' projection in front. By using double deck bunks this house may be adapted to house 8 to 16 men without mess facilities.

A-16 One story frame construction. 24' x 28'. Living room, 3 bed rooms and bath, front porch, small rear stoop, no cellar, concrete foundation, gable roof, heated by stove. To house 3 to 6 men.

A-17 One story frame construction, three (3) bed rooms, living room, dining room, bath and sleeping porch. Wash room and laundry and kitchen in small rear wing. Basement with vegetable cellar.

DAIRY BARNS

Plan No.

B-1-a Standard 36' dairy barn, gambrel roof, of length to suit any size herd. Cows facing out. Feed room attached at side. Hay loft, capacity one ton per foot length. Alternate floor plan for Richmond city requirements with milk and feed room at end of barn but separated from main cow section by 12' passage-way.

B-1-b Same as B-1-a but with cows facing in.

B-2 Cinder block twenty (20) cow barn, 36' x 69'. Cows facing out. Hay mow with self supporting gambrel roof extending over milk and feed room.

B-3 One story shed roof barn for 6 cows, 18' x 31'. Feed room in one end.

B-4 20 cow dairy barn, 36' x 64', cows facing out, gambrel roof, large hay mow capacity.

B-5 One story gable roof barn for 28' cows, 36' x 58'. Cows facing out. Scissors truss construction.

B-6 Same as above but for cows facing in.

B-7 One story gable roof, 34' x 61'-6". Cows facing out.

B-8 One story gable roof, 34' x 45'. Cows facing in. 20 cows.

B-9 4 cow barn, 18' x 30', calf pen, hay storage, gable roof.

B-10 Home made wood stanchions.

MILK HOUSES

B-11 Milk house, 13' x 22'. Boiler room, work table, testing table, separator and wash sink in one room. Screened sunning shelf.

B-12 Milk house, 12' x 32', three rooms, separator room, boiler room, and general room.

Plan No.

B-13 Milk house for V. P. I. 12' x 30'. Three (3) rooms, boiler room and coal bin, washing and testing room, separator room with weighing room attached. Loading platform and can rack.

B-14 Milk house, 18' x 26'. Three (3) rooms and cold storage or refrigerator room. Suitable for 20 to 40 cows where the milk is bottled.

B-15 Milk house, 15' x 20'. Boiler room, and wash room. Suitable for butter-making.

B-16 Milk house, 21' x 27'. Milk room, wash room, office, boiler room and toilet room.

B-17 Milk house, 12' x 14'. One room. A plan suitable for farm with a herd of from 25 to 30 cows and arranged for handpower butter-making equipment.

B-18 Milk house, 10' x 20'. Perhaps the best all around milk house for dairies shipping milk or cream. Boiler room, wash room, milk room. Conveniently arranged and relatively inexpensive. Adapted to dairies of from 10 to 30 cows.

B-19 Milk house, 27' x 31'. A plan designed for those farms producing certified milk or a special grade of milk from 40 to 100 cows. Besides the usual facilities for bottling milk and cleansing utensils, it contains a dressing room and showers for the milkers.

B-20 Milk house, 14' x 24'. Fully equipped for handling a bottle milk business with from 25 to 50 cows. Milk room, wash room, boiler room, refrigerator.

BEEF BARNS

C-1 Two story frame barn 36' x 84', self supporting gambrel roof. Capacity 55 head. Hay mow capacity, 84 tons. 6 feet feed alley through center of barn, with feed mangers on each side. Feed room in corner of barn.

C-2 Beef cattle feeding shed 25' x 70', two story frame barn. Self supporting gambrel roof. Capacity, 30 head. Hay mow capacity, 60 tons. Feed alley at one side with manger. Feed room and box stall at end.

C-3 Beef cattle feeding shed, capacity, 100 head. Feed alley through center with manger on each side. OPEN ON ALL SIDES.

C-4 Beef cattle barn, 30' x 60'. Two story. Two feed troughs in center of one side. Feed alley through center with feed racks and troughs on each side. Feed room at end.

C-5 V. P. I. beef cattle barn 30' x 80'. Two story frame barn. Gambrel roof. Storage bin on second floor. Concrete floor feed alley through center with stalls, bull pens and feeding pens on each side. Feed room near one end.

C-6 Beef cattle shed, 30' x 96'. One story frame barn. Gable roof. Feed alley through center with sheep pens on one side and box stalls on one side. Concrete feed alley. Dirt floor in pens and stalls.

C-7 Beef cattle barn approaches to loft floor.

C-8 Cattle shed, 20' x 68' with 20' x 24' ell. 50 head loose cattle. L shaped, open front, gable roof, concrete foundation.

C-9 Cattle barn, (closed type), 36' x 72'. 2 stories, 48 to 68 head loose cattle, concrete paved central feed alley with feed troughs and hay racks on each side, mow capacity 100 tons loose hay, gambrel roof, concrete foundations. (Feed room 20 x 20 feet shown connected to two 14' diameter silos).

C-10 Cattle stock.

C-11 Dipping vat for cattle.

C-12 Cattle feeding rack.

C-13 Self feeder for cattle.

C-14 Dehorning chute.

HORSE BARNS

D-1 Gambrel roof horse barn for 6 head. 34'- 0" x 26'- 0". 4 stalls, 2 box stalls. Harness room, feed room. Feeding room in center of barn. Hay capacity, 24 tons.

D-2 Ten mule barn, 60'- 0" x 36'- 0". Gambrel roof construction. Feed room. Harness room, feed alley through center. Hay capacity, 60 tons.

D-3 Gambrel roof horse barn, 36' x 40', 2 box stall, 6 hitch stalls. Feed bin and harness room.

D-4 Horse barn, 34' x 42'. 2 stories, 3 single, 4 double, 1 box stall, harness room, grain bin 450 bu., corn crib 500 bu. ear corn, mow capacity 50 tons, 4 feet central feed alley, gambrel roof, concrete foundations and wall to window sills.

SHEEP BARNS

E-1 Two story frame sheep barn, 20' x 44', gable roof. Capacity 50 sheep. Central feed alley with manger on each side. South side open. Hay capacity--12 tons.

E-2 One story sheep shed, 20' x 50', gable roof, 70 sheep. South side open. Feed alley across center.

Plan No.

E-3 Sheep barn, 16' x 48'. 2 stories, 50 to 60 loose sheep, feed rack in center, mow capacity loose hay. Self supporting frame on concrete piers, gable roof. Sides covered with boards and battens.

POULTRY HOUSES AND EQUIPMENT

F-1 Combination roof poultry house, 30'- 0" x 18'- 0". Laying house for 130 hens. Bill of materials.

F-2 Shed roof poultry houses. 20'- 0" x 14'- 0". 70 hens.

F-3 Colony house (portable) 6'- 0" x 8'- 0", bill of materials.

F-4 Portable brooder house, gable roof, 12'- 0" x 14'- 0". 600 chicks first two weeks, 300 to 400 afterward.

F-5 Portable brooder house, shed roof, 12' x 14'.

F-6 Incubator house, 10'- 0" x 24'- 0". Gable roof.

F-7 Open air poultry houses. 6'- 0" x 10'- 0". Portable.

F-8 Long dry mash hopper. Self feeder. Dry feed hopper, dry mash self feeder, buttermilk self feeder.

F-9 Details of: Small self feeder, portable chick feeder, fattening crate and trap nest.

F-10 Roost and nest construction.

F-14 Cinder block laying house, combination roof, 20' x 40'.

F-15 Multiple unit laying house. New Jersey type. Shed roof. 20' x 40'.

HOG HOUSES AND EQUIPMENT

G-1 Dipping vat for hogs with bill of material.

G-2 East and West type half monitor roof hog house, 20' x 44'. 13-6' x 8' pens with individual doors. 4 feet central alley way. Feed room in one end. Concrete floor.

G-3 Shed roof movable hog house, 6½' x 8'. Light frame construction.

G-4 A shaped movable hog house, 6' x 8'.

G-5 Gable roof type hog house, 26' x 62', 14-8' x 10' pens. Feed room and scale room in one end. 6 feet alley way through center.

G-6 Half monitor, V. P. I. hog house, 60'- 0" x 24'- 0".

G-7 Hog house, 7' x 8'. Bill of materials. Colony house, on runners or skids. Gable roof, batten doors open on both sides of roof.

Plan No.

G-8 Hog house, 20' x 36'. Bill of materials. 12 pens 6' x 8', 6 on either side of 4 feed alley. Movable division partitions with hinged fenders. Gable roof, concrete foundations, alternate types of pen floors. Windows in end and side walls. Sliding doors from each pen to feeding yard.

G-9 Hog house, 8' x 36'. Bill of materials. 6 pens 6 x 8' in one row, no feed alley. Movable division partitions with hinged fenders. Box car types of roof, concrete foundations. Alternate types of pen floors. Windows in end and one side. Sliding doors from each pen to feeding yard.

G-10 Arkansas self feeder for hogs. Size for 50 to 60 shoats.

G-11 Two way self feeder for hogs; for shelled corn and ground feeds.

G-12 One way self feeder for suckling pigs.

G-13 Hog shipping crate, frame. Bill of materials on drawing. Three sizes shown, for hogs weighing 150 - 175, 250, 500 lbs.

G-14 Hog alfalfa feed rack. Bill of materials on drawing. 10' x 3' feed rack for hogs. On skids or runners. Tight trough to catch fine hay which may sift through slatted immediately above.

G-15 Breeding crate for hogs. Bill of materials on drawing. Dimensions 10 x 2-1/2 feet. Adjustable.

G-16 Hog house, gable roof, 22'- 8" x 45'- 8". 12 pens 7' x 8'4". 6 on either side of 6 foot feed alley. movable division partitions with hinged fenders, gable roof, windows in both sides over doors from pens to exercise yards. Concrete foundations and floors, chimney for stove, frame superstructure.

G-17 Hog loading chute on wheels. Bill of materials on drawing. 20 feet long, 2 feet wide, sides 3 feet high.

G-18 Wooden smoke house, 6' x 8'. Bill of materials. Frame construction with concrete foundations, gable roof, concrete fire box on outside with terra cotta duct to house.

GENERAL PURPOSE BARNS

H-1 General purpose barn, T-shaped frame. Front wing two story, self supporting gambrel roof, 36' x 60'. Four single standing horse stalls. 3 double standing stalls. 2 feed rooms. 2 bull pens and central driveway. Hay capacity, 60 tons. Standing stalls facing in. Rear wing--gable roof feeding shed, sides open, 34' x 96'. 6 foot central feed alley with feeding mangers on each side, capacity, 96 head.

Plan No.

H-2 General purpose barn. Two story frame construction, 32' x 40'. Self supporting gambrel roof. 8' central feed alley, on one side 3 box stalls, feed room and harness room, on other side, beef cattle compartment for 12 head.

H-3 General purpose barn, two story, frame construction, 28' x 45'. Self supporting gambrel roof. At one end two box stalls, and two standing stalls facing 10 feet cross driveway. Hay capacity, 30 tons.

H-4 General purpose barn, two story frame construction, 36' x 68'. Self supporting gambrel roof. 10' central driveway. At one end, four standing stalls, facing out and two box stalls. At other end, ten cow stalls facing out and four pens. Feed room in center. Partition separating house from cattle compartment. Hay capacity, 68 tons.

H-5 General purpose barn, two story construction, 36' x 73'. Self supporting gambrel roof, 8 feet, central driveway. At one end, 14 cow stalls facing out (two rows). At other end and separated from these by a partition are 4 box stalls with outside doors, 2 grain storage rooms, harness and feed room. Hay capacity, 73 tons.

H-5-a Four suggestive floor plans for general purpose barn, 36' wide.

H-6 One story frame hay barn, 30' x 60', self supporting gambrel roof. Capacity, 90 tons.

H-7 General purpose barn, gambrel roof, 4 stalls, machinery room, driveway.

H-10 Gable roof general purpose barn for 2 horses and 1 cow. 24'-0" x 18'-0".

H-12 Hay barn, 60'-0" x 50'-0" (with feeding shed).

H-13 Hay barn, 30' x 60', double sheds open on all sides.

H-14 General purpose barn, 36' x 91'. Bill of materials. Two stories, basement provides for 3 single and 1 double horse stalls, 2 box stalls, pen for 7 calves, 27 cow stanchions, 8 feet. Center driveway, water trough, harness room, horse stair, feed room. Concrete bridge to second floor. Second floor contains grain storage space and 3 grain bins 136 bu. each, drive and vehicle storage space, mow with 70 ton capacity. Gable roof, concrete floor and basement walls to window sills.

H-15 General purpose barn, 56' x 64'. Bill of materials. 4 double horse stalls, 1 box stall, 5 cow stanchions facing in, pens for 65 sheep, 4 grain bins 300 bu. each, crib for 300 bu. ear corn, mow extends from ground to ridge with 58 tons capacity, gambrel roof 26 foot span with 15 foot shed on each side. Concrete foundations, board and batten exterior.

Plan No.

H-16 Hay shed. Bill of materials. To be built in 16 feet sections or bays 28 feet wide, capacity 20 tons loose hay per section. Trussed framing on concrete piers. Lower half open, upper half closed with boards and battons, gable roof.

H-17 General purpose bank barn suitable for building on side of hill. 24' x 32'. Main floor for implements, etc. Hay loft, basement under 1/2 of barn with shed attached for beef cattle.

MACHINERY AND SHOP STRUCTURES

I-2 Machinery shed, 22' x 60', open front, combination roof, can be built in 12 foot sections.

I-3-a Workshop and implement shed, 22' x 54', horizontal siding. Workshop in one end, 14' x 22'. Closed shed, 20' x 22', sliding doors, open shed, 20' x 22'.

I-3-b Workshop and implement shed. Same as I-3-a, except that it provides for vertical siding.

I-4 Machinery shed 18' x 48', gable roof, closed with sliding doors on front. Vertical siding, floor space free from posts. Can be built in 12 foot sections.

I-5 Farm repair shop and machinery shed, 24' x 50', gable roof, scissors truss, can be built in 10 foot sections. Repair shop, 16' x 24', double doors on front provide for work bench, forge, tools, etc. Machinery shed, 24' x 34' with closed sliding doors on front and large sliding door at end.

STORAGE HOUSES

CORN CRIBS

J-1 2000 bu. corn crib, gable roof, frame construction, 32' x 28'. 12 foot driveway through center. 8' wide bins on each side.

J-2 500 bu. corn crib, 12' x 16'. Granary in gable.

J-3 Corn crib and granary, 26' x 36'. Bill of materials. Two cribs 8' x 36' separated by a 10' concrete paved driveway. Space is provided over the driveway for the storage of grain. Capacity 3,540 bu. ear corn and 2,710 bu. grain. Gable roof over whole. Designed for use with portable elevator, shelling trench and ventilation shafts. A special feature is the provision for racks which facilitate the drying of soft or immature corn.

J-4 Portable granary, 10' x 14'. Bill of materials. Capacity 780 bu. grain, rat-proofed, gable roof, boards and battens for side covering, provided with skids or runners for moving.

Plan No.

J-5 Granary, 14' x 24'. Bill of materials. Two bins each end of building, total capacity, 1,800 bu. grain, space provided in center for cleaning seed, rat-proofed, gable roof, concrete foundations.

POTATO AND VEGETABLE STORAGE HOUSES

J-6 500 bu. sweet potato storage house, 12' x 16'.

J-7 Sweet potato storage house, 40' x 100'. Bill of materials. 15,500 bu. in bulk or 12,000 bu. in crates, frame structure, gable roof, concrete foundations, building divided into three compartments each containing 18 slatted bins, 6 on each side and 6 in center with two 3'6" aisles, provision for 6 stoves, floor and roof ventilators, windows in sides.

J-8 Sweet potato storage house, 16' x 29'. Bill of materials. 1,000 bu. in crates, frame, gable roof, pier and girder foundations.

J-9 Sweet potato storage house, 20' x 40'. Bill of materials. 2,500 bu. in bulk or 2,000 bu. in crates, frame structure, gable roof, concrete foundations, 9 slatted bins on each side with 3' aisle. Provision for one stove, floor and roof ventilators, windows in sides.

J-10 Fruit and vegetable storage cellar, arch roof, 10' x 13'. Bill of materials. 220 bu. concrete construction, to be built under ground.

APPLE STORAGE

J-11 Cinder block apple storage house, 32' x 50'. One story, capacity 5000 to 7000 bu.

J-12 Cinder block apple storage house. Same type as L-1, 20' x 30', 1500 bu. capacity.

J-13 Apple storage cellar, 30' x 68'. Cinder block walls, reinforced concrete roof. 7000 bu. capacity.

J-14 Apple storage cellar, same construction as L-3, but 20' x 30'. 1500 bu. capacity.

LIME STORAGE

J-15 Lime storage house, frame construction, 70 ton capacity, 14' x 24'.

J-16 Lime storage house, frame construction, 10' x 64'.

J-17 Lime storage house, frame construction, 14' x 24'. 90 ton capacity.

ICE HOUSES

Plan No.

J-18 Ice house and milk room, 14' x 20', frame construction.

J-19 Small inexpensive ice house, 12' x 16', frame construction.

MANURE STORAGE HOUSES

J-20 Covered manure shed, 14' x 22', concrete and frame construction. Driveway through center. Bill of material.

APPLE PACKING HOUSES

K-1 Apple packing house, frame construction, 40' x 80' with 20' shed on one end. Empty barrel storage--second floor.

K-2 Apple packing house, frame construction, 50' x 100'. Receiving shed at one end. Empty barrel storage--second floor.

K-3 Apple packing house, 60' x 90'. Barrel storage above. Driveway through basement. Receiving shed on one side. Shipping shed at other side.

TOBACCO BARNS

L-1 Tobacco stripping and packing house, 24' x 42'. Designed for Chatham Experiment Station.

L-2 Tobacco barn, 18' x 27'. Frame construction.

L-3 Concrete tile tobacco barn, 17'10" x 17' x 10'.

FAIR EXHIBIT BUILDINGS

M-1 Fair exhibit building, 40' x 60'.

M-2 Fair exhibit building for New Kent County Fair Association, 30' x 80'.

M-3 Fair exhibit building for Charles City County Fair Association, 50' x 84' with basket ball court.

M-4 Fair exhibit building for Orange County Fair, 74' x 151' with dancing pavilion.

M-5 Fair exhibit building, 50' x 120', frame construction.

M-6 Poultry exhibit building, 24' x 64'.

MISCELLANEOUS STRUCTURES AND EQUIPMENT

Plan No.

N-1 Construction details for gambrel roof, braced rafter type, 36' wide, barn frame.

N-2 Construction details for gambrel roof, truss type, barn frame, 36' wide.

N-3 Construction details for scissors truss for a 34' span.

N-4 Home made lime spreader for attaching to wagon.

N-5 Improved rag doll germinator---Godkin.

N-6 Tobacco wagon rack, 14' to 13' long, 3'8" wide, 2'6" high above wagon body.

N-7 Concrete stove.

N-8 Weighing scale fence.

N-9 Reenforced concrete reservoir, 4000 gallons capacity, 11' x 13'.

N-10 Single chamber septic tank, concrete.

N-11 Movable fence for sheep and hogs.

N-12 Farm construction for concrete feeding and watering trough.

N-13 Concrete hog wallor.

N-14 Concrete feeding floor, 10' x 25'.

N-15 Home water works, suction pump on sink in kitchen. For shallow well. Bill of material.

N-16 Home water works. Force pump at well. Sink in kitchen. small tank over sink in attic. Bill of material.

N-17 Home water works. Same as N-16 but with hot water tank connected to kitchen range. Bill of material.

N-18 Home water works. Same as N-17 with bath room fixtures.

N-19 Home water works. Gas engine driven force pump at well. Storage tank above well. Hot and cold water in kitchen and bath room.

N-20 Three water systems. Pneumatic, hydro-pneumatic, and gravity.

N-21 Stave silo. Details of construction of home made silo.

N-22 Wooden hoop silo. Details of construction of home made silo.

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List of Farm Building Plans

Plans available for distribution in Virginia

By

Agricultural Engineering Department
Virginia Polytechnic Institute

VIRGINIA AGRICULTURAL AND MECHANICAL COLLEGE AND POLYTECHNIC INSTITUTE
AND THE UNITED STATES DEPARTMENT OF AGRICULTURE, COOPERATING
EXTENSION DIVISION, JNO. R. HUTCHESON, DIRECTOR
BLACKSBURG, VIRGINIA