SPECIFICATIONS

FOR BUILDING

JAIL & JAILER'S RESIDENCE,

—FOR—

CARROLL COUNTY, KENTUCKY.

Specifications of Labor and Materials Required in the Erection of a Jailer's Residence and Jail Building at Carrollton, Carroll County, Ky., to be done in accordance with the Accompanying Drawings prepared by Thos. Boyd, Architect, Pittsburg, Pa.

General Description.

The size of building, dimensions of walls, &c., must be taken from the plans and sections.

The building to consist of basement, first and second stories, with pitched roof over the entire building.

The first and second stories of jail will have iron floors.

Roof will be constructed of wood, also all the floors of dwelling to be made of wood.

Basement story walls will be built of stone and all the residue will be built of good hard brick.

For the number and arrangement of rooms, position of openings, and general arrangements, see plans, sections and elevations.

The stair-case to be wood, and to start from the basement and to be continued up to the second story.

Jail walls to have iron built in, and to have iron cells, having stone floors in all the corridors.

All the rooms to be thoroughly lighted and ample provision made for heating and ventilating the entire building.

Joist Beams for jail to be iron and the floors to be corrugated iron arches.

The jail building to be heated with warm air, and all other rooms to be heated with fire-places and to be ventilated through flues, which will connect with main ventilating shaft, having inlet opening on outside of building.

Excavation.

Excavate the entire area of the building as shown on the basement and foundation plans. Also excavate trenches for footings of outside and inside foundation walls to the depths and widths as shown on plans and sections, provided hard compact soil is found, but if soft made soil or material is encountered, then excavate until a firm bed is found, as shall be directed by the building committee, architect or superintendent.

All trenches for footings after having been excavated to be pounded down solid and hard with a heavy maul before the footings are laid.

Dig down and excavate for ventilation shaft; also all drain and supply pipes, foundations of areas, step foundations, and chimney foundations as required by plans and sections to the widths and depth as shown (unless required to go deeper to reach a firm foundation); also do all excavating necessary to connect main drain with well if brought near the building.

Remove all rubbish that may have accumulated during the progress of the building, and grade up around the building to the height and grade as may be required by the building committee, and all surplus not needed for grading up around the building to be removed to such locality as may be directed by the committee or superintendent, and all the above work to be done in the very best manner, to the committee's and superintendent's entire satisfaction and acceptance.

Stone Work.

FOOTINGS for all the outside walls and ventilating stack will be 1 foot in height of the width shown on plans by blue lines.

All stone for footings to be in one course, the full thickness, width and of such lengths as will make at least 12 cubic feet to each stone.

All these stones to have hammer dressed beds and tops, and each stone to be set in place with a derrick or pole, and to be laid in soft cement mortar.

After the footings are in, the sides to be filled up with clay or gravel, and well rammed, and the end joints to be grouted full with soft cement mortar and well washed in.

For inside walls to be the same depth and of the width shown on plans by blue lines, to be built in the same manner as above. Each stone to contain not less than eight cubic feet.

Footings for small brick walls to be 18 inches high and 18 inches thick.

All the footings must be settled with a heavy wooden maul as laid.

BASEMENT WALLS. The footings to be leveled off and then start the basement wall the sizes figured on the plans.

Those on outside of building will be laid in courses of about 1 foot. Each alternate stone to run through the walls and to be cut in length as shown on detail drawings. All must have dressed beds and end joints.

The inside face to be hammered straight and the outside to be tooled ashler.

Sills, Jambs and Belt courses to be moulded as shown on elevations and sections.

All the inside walls and foundations for steps will be heavy rubble work, and must be large stone having broken hammer face and flat beds.

All stone to be laid on their flat and to be well bonded, having large through stone inserted every three or four feet in length. Each stone must be fitted with the pick and hammer so as to use but few spalls in leveling up.

All must be well and solidly filled with mortar.

The mortar for stone work must be made of the best sharp sand and fresh burned lime, slacked in a box and run off.

For the footings and outside walls Louisville cement and best sharp sand will be used.

The ashler work to be pointed at least 2 inches with fine mortar, made of fine sharp sand and Portland cement, properly proportioned.

The face stone for ashler must be a good durable stone as hereafter described. All other stone may be coarse, but must be strong and well knit together.

All openings in basement in the inside to have segment brick arches 9 inches deep, having the courses bonded, and all the openings on the outside to have iron lintels as shown.

Flues in basement must be faced with brick having the inside joints struck.

An opening to be left 1 foot below the underside of beam. All the

walls to be straight and plumb, and built in the manner described.

All openings of pipes for draining or ventilating to be left in stone work where shown on plans as hereafter described.

Cut Stone.

The ashler above grade line, also that in area to basement entrance. outside steps to basement story floor, chimney caps, window and door sills, area, copings for area as per plans and sections, to be of the best quality of good clear sand stone, free from all defects, iron pyrites, clay balls, or other imperfections, and is to be cut stone, to the acceptance of the board of commissioners.

ASHLER. The ashler above grade line to be laid in courses as shown on the elevations, and will be laid header and stretcher. Bond headers running through the walls at window and door openings as shown on basement plans and elevations, and have the stretchers alternately bind and tie into the perch work, 8 and 12 inches to be laid in courses as represented on the elevations, and to be fine tooled-work eight to the inch and margin draughts. All to be well set closely jointed and pointed with Portland cement.

BELT and sill courses in basement story will be moulded as show on the sections and detail drawing.

DOOR SILLS to front entrance will be in one stone, and to be of hard solid lime stone, or a fine hard sand stone and must extend clear through wall.

Jail floors will be laid with a 6 inch flag stone, 4 feet wide, covering the entire space of corridors, and to run under cells 12 inches and built into walls 4 inches.

Space under cells to be covered with 2 inch flag stone, all to be well bedded in cement.

STEPS to basement story will be cut sand or lime stone, set on a stone foundation, and to have each step made in one stone and made after detail drawings.

The upper step must be jointed on back edge, forming coping.

Window caps and the like to have at least 9 inches bed on walls.

All sills for windows must run at least 12 inches under sash sills.

Coping on area wall 8x12, chimney caps 8 inches thick, and cap on large vent stack to be made of 8 inch sand stone, having the joints anchored together with iron hooks or dogs.

All the joints to be neatly pointed with Portland cement mortar in a very careful manner.

All the moulds or patterns for cornices, mouldings, &c., to be made of sheet zinc and strictly to the plans.

All stone to be free from flaws or imperfections. Hearths in all the rooms and court room to be 2 inch flag stone laid in mortar and to have the upper side polished and the edges dressed square and straight. All to be 2x5 feet.

The contractor for the stone work must provide all labor and materials, including all scaffolding that may be found requisite to execute and complete his work and to make it clean and perfect, subject to the approval of the architect, and must hold himself responsible for all chipping and spalls that may be knocked off, and must repair any stone so defaced.

All stone and stonework must be subject to the approval or rejection of the committee and superintendent or architect.

The stone contractor will please make a separate estimate for building the first or main story of the jail of stone, instead of iron and brick as shown.

The walls to be built of through stone. Each stone to be 10 inches thick, and at least 3 feet long and the full thickness of wall.

Each stone to be well bedded and laid in fine mortar, and to be anchored together with three 2-inch cast iron cannon ball fitted neatly. This wall to be carried up to top of second story joist and to extend all around jail on both sides and both ends.

Brick Work.

The walls shown on plans by red color will be built of well burnt common brick of good merchantable quality laid every 6th course a header, in good mortar composed of sharp sand and fresh burned lime well mixed with water and duly proportioned.

The chimneys and outside of all walls to be faced with the best quality of carefully selected bricks, of uniform size and color, that can be obtained in Carrollton laid in fine white mortar, composed of white lime and white sand in the best manner, having plumb bond and fine courses between the headers or diagonal bond courses.

The stories will be the heights figured on the sections, and all walls the thickness marked on the plans.

The walls in basement will be built of hard burned brick, and none to be used in any part of the work softer than a well burnt salmon brick.

FLUES. All smoke flues throughout the building to be built to the size marked and shown on the plans, and will have the joints filled and struck on the inside from bottom to top, smoke flue from kitchen and furnace to be cast iron.

Air-flues will be lined with tin and to be built as shown.

The fire-places to be located where shown on the plans, and to be built in the most substantial and scientific manner, and all fire-places to have stone hearths the size figured on the plans. There will also be two smoke flues in ventilation shaft.

VENTILATION SHAFTS to be carried up the sizes as shown on the plans, having openings left in basement for smoke pipes,

Air flues, registers, and openings in shaft for ventilating flues in each story.

AIR FLUES. The ventilation flues are colored blue on plans, and will be the size shown on plans, and to have tin linings with openings to admit a 14x20 register for each flue opening into rooms.

All the flues marked floor ventilation will commence on top of the base of the rooms in which they are located, with a 10x16 register, and continued down to the ventilation duct in the floor.

The ventilation flues for the water closets to commence under the seats of said closets, with registers, and connect with main vent shaft in cellar through 6 inch Terry-cotta pipes.

Thus by rarefaction of air produced by the heating of ventilation shaft, the foul air is drawn from the flues, to the shafts, and from them into the open air. Expelling the foul air from the rooms.

Ventilating flues for fire-places will be carried from the underside of hearth, and carried around fire-place over iron box, (which is hereafter described) and to connect with flue in jamb, as shown on detail drawings for chimneys.

ARCHES. Nine inch bonded arches will be turned over all openings having circular heads.

The brick to be wet before using, and all the work shall be plumb, straight and level, and must be grouted full every course, with cement mortar composed of one part Hydraulic cement and one part clean washed fine sand, made thin with water and poured in.

The inside of walls must be carried up with the outside and built to a line on both sides. All carried up uniformly over the whole building without block joints, &c.

The walls shall be well braced and stayed as erected, and kept perfectly true and straight from bottom to top.

The walls of jail will have $\frac{1}{2}$ inch plate iron built in the vertical seams as shown on detail drawings.

These sheets to be of such lengths as to work in between the headers.

The bearings of all iron beams or joist and three courses under each tier of beams or joist shall be hard brick exclusively.

All putlog holes are to be filled up, all flues cleaned out and mortar to be removed from all projections and new work to be well joined into old wall.

The grates to be set with fire brick and tile in the most approved manner.

The bricklayer to furnish all labor and material necessary to complete the brickwork; also all scaffolding, hoisting apparatus, &c.

All to be subject to the inspection and approval of the committee and architect.

The bricklayer to make a separate bid for all the brick work excluding walls of jail to top of second story beams, so that the committee may decide between building with stone, and brick with iron in joints for the jail.

Iron Work.

FLOOR-BEAMS. The first and second floors of jail will be constructed with wrought iron beams, with corrugated iron arches. All beams to be 12 inches deep, weighing not less than 42 pounds to the foot. All must have a bearing on the walls of 9 inches and to have cast iron pressure plates under each end 1x8x15 inches.

No beams to be set more than 4 feet apart from centers and all must be spaced regularly running from three to four feet.

TIE RODS to be turned around the flanges to secure the beams together and to prevent lateral strain or thrust on the outside walls, and to be made of ½x2 inch wrought iron hooked to flange of beams and anchored in outside walls as shown.

There will be 2½ inch angle irons placed in walls to receive the ends of iron arches, same as beams.

IRON ARCHES. The space between beams of first and second story, to be spanned with corrugated iron arches, made of No. 16 galvanized iron, and to be sprung to a five foot radius.

The flanges of beams will be covered on the underside with a galvanized iron moulding so as to make a neat and ornamental finish. Each sheet must be well riveted to the other as they are put in.

IRON PLATES. There will be ¼ inch plate placed in the vertical joint between the headers of brick wall around jail. These plates to be anchored together with ½x2 inch straps as shown on detail, and to break back and forward in the inside joints of brickwork. The plates to be the full width, below the headers as shown, and to be riveted together in length so as to make one piece, for each side, and to be riveted on the corners.

These plates must be well painted before putting in, all must be well braced and stayed as shown.

CELLS. Make floors, ceiling and partitions of boiler iron. Floor and ceiling, ¼ inch and partitions three-sixteenth inches thick.

Make external walls of 2x⅜ inch flat-iron, crossed in 2 inch meshes, and place seven-sixteenth inch rivet at each intersection countersunk on the inside. Place angles 2x2 inches on all the corners to secure the strips and lattice.

The joints below sheets to be covered with ¼x3 inch iron and secure the same with ⅜ inch countersunk rivets spaced 3 inches from centres. Furnish doors for all the cells made in the same way, as outside walls. put a margin bar 4 inches wide and ¾ inches thick along all the edges of door.

Place a bar 4 inches wide and ¾ inches thick along each side of door to stiffen the grating, and to hang the door to. Furnish a 5 tumbler lock for all doors, size 6x10 inches with bolt of wrought iron 1x2 inches; make the lock-box of strong wrought iron and secure the same to door on outside with bolts and wrought iron keepers. Place a lock plate 12 inches wide and ⅜ inches thick across the center of each cell door.

Put a feed hole 5x7 inches near bottom of door also place strong hinges and fastenings on each door.

Cell doors to be 2 feet wide by 5 feet high, place a lock bar over each row of doors and arranged with levers, so as to be operated from the outside of jail in hall. This bar to be ⅝x2½ inches, and to have the proper keepers &c.

Extreme doors to jail will have a wrought iron frame 30x78 inches made of ¼ inch boiler iron, having 2x2 angle iron rivited on each edge. Rivets to be ⅜ inches, placed 3 inches apart. The frame to be the full width of brick joint. Outside door to be solid and to be made of ¼ inch iron, having frame run around ⅜x2 inches wide and riveted every 3 inches with ⅜ inch rivets having heads counter sunk.

The inside doors will be made of 1½ inch round bars of combined iron and steel rods, with flat bars ⅜x3 inches of same material. Steel to be hardened to resist saws or files.

There must be a firm union of the metals.

The inside door to be circular as shown on detail. Door to be hung with heavy strap hinges and to have two dog bolts on back jamb.

The outside solid door will have a strong 5 tumbler lock similar to cell door but to have an additional bolt at top and bottom, of 1x2 inch, and connected together with handle and secured with lock. The inside lattice door will be secured with two hasps as shown on detail,

having a stout bar of iron to hold them in place. This hasp will run through to outside door and locked with strong dead lock having 4 tumblers.

Door in basement will be made of 1 inch bars having ½x3 inch cross bars as shown, and have strong hinges and tumbler lock.

PEEP HOLE. There will be a cast iron bowl, made where shown, 18 inches in diameter, having three small peep holes. This will be ⅜ inches thick, having a strong flange built into wall, as shown on detail drawings.

WINDOW GUARDS. The windows in jail will have double guards made of 1¼ inch bar and ⅝x3 inch cross bars; place as shown on section, and all must be riveted together.

There will be a wrought iron frame made for these windows ⅜ inches thick, having the bar and rods through. This frame to have a wooden sash hung on the inside as shown. The rods and cross bars will be made of combined iron and steel, in the same manner as doors.

CELLAR WINDOWS will have 1¼ inch round rods and cross bars as shown. Second story will have screens made of ¾ inch rods and ½x3 inch cross bars, all riveted together in same manner as other windows.

FLOOR GRATINGS. There will be two frames made for floor with combined iron and steel plates made of ½x1½ inches, placed in two inch meshes. The upper grating cross at right angles and the lower will cross diagonally. All must be riveted together at intersections, and to be secured to a wrought iron frame made of ¼ inch iron.

The frame will be 2 feet square. Also make similar grating for the two ventilating flues in floor under water closet, to be 10 inches square.

This grating must be well secured to iron beams. Make single grating in the same manner for ventilating flues in wall on side of the jail. This grating will be 20x30 inches and to have ¼ inch wrought iron frame and back well anchored into wall as shown on plans. Provide two smoke flues of cast iron 9 inches in diameter.

GRATES. There will be 7 grates, having 24 inch baskets and 6 inch flanges; all enameled and finished in the best manner, and to be provided with cast iron open summer fronts and cast iron backs with sheet iron pipe as shown.

A cast iron frame 2 feet wide by 4 feet 6 inches high to be placed in side of ventilating shaft, in kitchen, having a heavy sheet iron door.

Door to be made of No. 16 iron, having a frame or style of ½x4 inches riveted solidly together.

This door will be hung with heavy strap hinges and secured with good strong bolt at top and bottom.

All iron work must be painted with oxide of iron paint before leaving the manufactory.

Galvanized Iron Work.

The main cornice to be made of galvanized iron. The flat or straight parts to be made of No. 20 and the mouldings and ornaments to be made of No. 24 iron, and to be moulded as shown on detail drawings.

All galvanized iron work to receive a coat of paint on the back of under side as well as front.

All ornaments, brackets, &c., must be well stayed and braced with wrought iron rods.

The galvanized iron workers must set all lookouts, holdfasts and see that they are properly put up for his work.

Tin Work.

The entire roof will be covered with the the best roofing tin and have standing locked seams.

The sheets to be 20 inches wide and to be well secured with flange. All the tin to be painted with the best oxide of iron, oil and turpintine paint, and to be thoroughly dry before being put on.

Gutters will be formed behind cornice as shown on section, and be lined with heavy cross tin, having the joints hooked and soldered on both sides.

Eave pipes will be 6 inches at top, and made to fit cast iron conductors. All to be painted same as other tin work. These castiron conductors must be carried to tank in attic. There will be one from each side of roof. There will be 4-inch corrugated iron conductors run from gutter to grade of lot. All eave pipes to have a heavy copper wire basket on top. Conductors will have cast iron boots at bottom.

Carpenter Work.

MATERIALS. All the lumber to be white pine unless otherwise specified, and to be free from splits, shapes and other defects.

The boards and planks to be thoroughly seasoned and the timber, such as joists, &c., to be cut and stuck for seasoning immediately after the contract for building is made.

For the doors, sash, shutters, architraves, mouldings, &c., use clear lumber; for jambs, base, frames and the like, second clear, and for the timber, counterfloors, bridging, and the like, good common lumber.

All nails, brads, spikes, hinges, locks, bolts, pulleys, sash-weights, screws, clothes-hooks, roff-iron, &c., that may be required, shall be of good and approved quality.

FLOORS. Make the joist in first and second story rooms and halls 2x12 inches, spaced 16 inches from center to center, and to have iron shoes where they connect with the chimney as shown on detail of chimney.

Bridge all three lines latice bridging and frame double for all flues, trap-doors, stairs, &c.

Width and camber all, level upon 2½x5 inch wall plates. Joist over back end of hall will be 2x12 inches, spaced 12 inches from centers, so as to receive water-tank, 16 inches from centre as shown, also floor of basement to have 2x4 joist.

PARTITIONS will be 2x4 inches, spaced 16 inches from centres, and to be bridged with 2x3 scantling every 5 feet.

CONCRETE. The second story over jail, and basement story including cellar will have cement filled in between joist as shown on section, 4 inches deep and plaster over with hydraulic cement, mortar, flush with top of joist.

Make the concrete with coal ashes 3 parts and 1 part lime, mix thoroughly, lay it wet, settle with spade, lay mortar on concrete with trowel.

ROOF. Construct the roof as shown by the elevations and sections, and to be well supported on 6x6 posts.

RAFTERS for roof to be 2x8 inches, spaced 16 from centres; sheath the roof with surfaced boards.

Saddle the combs with wood and cover with galvanized iron. Make the gutters and valleys as shown and line them with tin as already described; also cover the entire roof with tin.

The whole roofing to be done in the most perfect manner, including flashings at the chimneys.

WINDOWS. The windows in first, second and basement stories to have boxed frames, made as shown on detail drawings.

All made for 1¾ inch sash, having beads for sash to slide vertically. Jail sash to be hung to iron frames as shown on detail.

Cellar windows to have solid frames.

Sash to be hung to cast iron weights, with ½ inch plaited hemp cords over 3 inch noiseless pulleys.

All the frames to be moulded on the outside and made to receive shutters on the inside.

The inside of heads to be square, all sash to have brass locks and lifts. The lower sash to have two lifts to each, and the upper sash to have a flush lift, so as to receive hook on end of pole.

DOORS. Make all the doors double worked. The outside front doors will be 2½ inches thick, moulded in panels as shown, on the elevations, to be in two folds and two thicknesses. These doors to be made of walnut.

The outside doors will be hung with three 4 inch bronze hinges to each leaf, and secured with two large flush bolts, and rebated mortise locks, with large 4 tumbler lock bolt. All the works to be brass, and the knobs and trimmings solid bronze.

Make all other doors 1¾ inches thick, with two inch raised mouldings in the panels (except doors in basement). Hang all the doors to two inch jambs having the rebates planted on to form panels.

Use three 4x4 black enameled butts to each door, and 5 inch mortise tumbler locks with brass works, keys and knobs for inside doors.

Door opening into female jail and cells to be made in two thicknesses with one ply of No. 16 sheet iron, and the jambs to be lined with iron.

STAIRS will be constructed where shown on plans

Those running to basement to have rough plank horses, and 1½ inch treads, and inch risers. The sides of these stairs will be enclosed with

panels as shown, on 1st story plan, those in basement to be enclosed with flooring boards, having a three inch hand rail on top.

Those running from first to second floors will be open having wall strings and panelled and moulded side strings. The steps to be 1¼ inch yellow pine, and the treads inch white pine.

All must be housed together in the very best manner, having blocks glued in angles, and the space underneath in first story to be enclosed with ½ inch panel work, having 2½ inch mouldings.

These stairs to have a 4 inch double moulded rail, having two inch balusters, with square bases, caps and ornamental turned shafts. The newells to be 14 inches, having square base, and turned fluted shafts moulded as shown, with a moulded cap.

Outside steps to have heavy plank horses, and inch steps and risers. Sides to be cased up as shown, and to have a light iron rail on top. the corners lapped as shown, and will be 2 feet deep, having the space

There will be a stationary ladder placed in second story to opening in attic, made in a neat substantial manner.

FLOORS. All the floors in basement, first and second story rooms and halls will be laid with inch white pine flooring.

Jail floor will be stone as previously described.

All the flooring to be laid on joists as described and to be secret nailed to every joist, and must have all the defective parts cut out; none over 5 inches wide. The top surface to be smoothed and leveled off after the boards are laid. No floors to be put down until plastering is done.

TANKS will be formed over hall and will be made of 1x5 inch strips, and must be well nailed or spiked together so as to prevent spreading. Strips to be laid on their flat and nailed every six inches apart, having around tank filled in with saw dust.

INSIDE FINISH. The main room to have a 6½ architrave finish having a 4 inch moulding.

Base course to be 10 inches deep as shown on section.

Second story of jail will have a plain architrave finish, as shown on section and detail drawings.

Mantels to be wood and to be plain pilaster mantels as shown on section.

Closet to have cloak rail and shelf, and to have double cloak-hooks every 6 inches.

VENTILATORS. There will be one large vent shaft where shown on plans.

There will be flues formed to ventilate jail and rooms connecting with the vent shaft, and to be provided with cast iron registers and to be carried across cellar with large galvanized pipe. Those leading from water closet and urinal to connect with soil pipe above trap, and to be carried to main shaft in a 4 and 6 inch terra cotta pipe.

The air flues are shown on plans by blue color.

The warm air flues in room to have black enameled iron registers, 10x14, near the ceiling. This flue to be in chimney as described. All to be set in the best manner.

There will be 10x14 registers placed in openings into large vent shaft; also one at floor in each room.

Cold air flues for grates must be formed between the joist where shown, and the openings on the outside of wall to have cast iron gratings.

All air flues must be made perfectly tight.

PARTITIONS around cells for female prisoners to be made of two thicknesses of 1 inch flooring boards, 8 feet high, having a cap on top with 1½ inch moulding underneath, and to be well secured at floor.

This partition to have one ply of No. 16 sheet iron placed between the boards. Also iron to be placed behind boards on side wall next bedroom and then to be lined with milled boards.

Partition around water closet and urinal will be made of flooring boards, covered on both sides with galvanized iron, and to have a door 3 feet high, made of milled boards in the same manner as partition and to be hung 18 inches from floor. Partition to be 4 feet 6 inches high.

The carpenter to furnish all scaffolding for the iron workers, plasterers and painters, and to provide all lookouts and braces for securing the galvanized iron work and must layout all the work for the stone masons and bricklayers, and to take the general supervision of all other work done, and furnish all the carpenter work needed for the other branches of work, whether fully specified or not, and must be subject to the inspection and approval of the architect in charge.

Concreting.

All the jail floors will be leveled up with concrete.

The first and second stories will have the space between beams, and on top of arches filled up level, with coarse concrete, and then covered 4 inches deep, with a concrete made of coarse ashes or gravel and lime made into a mortar, and rammed in solid.

The cellar and basement floor to be concreted 4 inches deep same as above.

Plastering.

All the walls and ceilings of first story (except jail wall and ceiling) with the walls and ceiling of second story rooms, and corridors, will be plastered, also the rooms, corridor and pantry in basement two coats of sharp sand, and fresh lime mortar.

All must be dried and then water floated, to a straight and hard surface, and then skimmed with the best stucco skim, which will have a rough sand finish.

There must be enough men put on each wall to finish it from floor to ceiling at once, so as to make no joinings. All must be well rubbed, and the froth worked in, so as to pack the sand solid.

The sand for the finishing coat must be washed and well sifted so as to prevent lumps and scratches all done in the very best manner, with the best materials.

The stone wall in basement will be furred with 1x2 inch strips and then with the studd partition and ceiling to be lathed with $1\frac{1}{2}$x$\frac{3}{8}$ inch lath free from oil and bark.

The plasterer must remove all spots from off the iron arches, stone or brick work, caused by the plasterers, and must leave his work clean and ready for the painters.

Gas Fitting.

There will be one $1\frac{1}{2}$ inch riser at side of building having large branch pipes extending to the rooms and corridors.

There will be outlets as follows: One ceiling light in all the rooms in first and second stories, four wall lights on sides of jail and one wall light for each room in the building including cellar and halls. Those in jail to have stop cocks outside and to be 7-6 from the floor.

The pipes to be of ample size to give full flow of gas throughout all the burners.

Sink the pipes their diameter in the walls and floor and no more, avoiding all unnecessary cutting or tearing of walls and floors. All to be fitted up, tested, and left ready for the metre and fixtures.

Plumbing.

There will be an 8 inch terre cotta sewer started from the front corner of building and extending to well in yard, having 4 inch branch pipes running to each water closet. sink and urinal.

Where two or three branch pipes unite they must empty into a 6 inch pipe, and to be carried to main sewer.

All must be put together with hydraulic cement mortar in the very best manner, and made perfectly water tight.

The iron pipes must be connected with the sewers and the first length set before the foundations are put in.

TANKS. There will be one tank in third story and to be lined with 4 pound sheet lead, 2 feet 4 inches high and to be made secure and water tight.

Sides of tanks to have dots or stays every 4 feet in length and one in height and must have the seams and joints carefully wiped.

Tank to be provided with a 6 inch sheet iron overflow, and must be connected with sewer in cellar; also a 2 inch wrought iron wash out to be connected with tank, having a ground valve with open pipe, plug, &c. Washout to connect with sewer.

Supply for tanks will be connected with the upper roof conductor, which must extend to within 6 inches of bottom of tank. and to be cast iron leaded together in the very best manner, and to have a good fall from gutter to tank.

Provide a $\frac{3}{4}$ inch strong supply pipe from each tank and carry the same to each set of water closets and urinals, having stop and drain cock tank with handle all complete.

Bedforshire urinals will be placed against walls where shown on first story of jail, having $\frac{1}{2}$ inch supply pipe and large waste pipes, connect-

ing with a 4 inch soil pipe in cellar, having open mouth to discharge into drain.

Urinal to be provided with stop cocks in cellar, pipe through floor to urinal to be rough galvanized iron. This urinal will have stone basin underneath having an outlet into soil pipe which must be leaded and made perfectly tight. The waste pipe to urinal must be let into wall and to be well secured and to open into soil pipe in cellar.

WATER CLOSET. Place one of Hellyer's patent artesian hoppers in corner of jail where shown, and to have 1 inch supply with stop cock in cellar. The hopper must be well bolted to stone floor, so that it cannot be pried away, and thesupply pipe to closet where it comes through jail to be strong iron pipe, and to be encased in wall back of hopper. This closet will have no seat. Soil pipes to be 4inch cast iron and to connect with sewer at bottom, having a half S trap where it connects. This soil pipe to have a Y band above trap to connect ventilating pipe. This ventilating pipe to be carried to main shaft, through a terra cotta pipe as shown.

Soil pipes from urinal to be ventilated in the same manner. Water closet in cellar and the one on second story will be carrs monitor pan closet, having stone china bowls and to have 4 inch cast iron soil pipe, with ½ inch lead supply pipe. These closets to have white pine seats and risers The one on second story will have lead pan underneath and to have small waste to discharge into soil pipe, both closets will have lead S traps underneath.

Bath tub to be cast iron and to be 5 feet 6 inches long having the proper patent overflow, and to have cold water supply with 1½ inch waste pipe to connect with soil pipe.

Cold water to have self closing spigot, and to be brass. All the lead pipe to be strong and the iron supply pipes to be galvanized iron.

The plumber must furnish labor and materials necessary to complete the work, in the best manner, and to the satisfaction of the architect in charge.

Painting.

All woodwork to receive three good coats of pure white lead and linseed oil paint.

All iron and tin work after being painted at the manufactory with oxide of iron paint to be painted two coats of lead, oil and turpentine paint.

All the galvanized iron work on the outside of building to have a coat of sand with the second coat of paint and two more coats of paint and two more of sand.

The tin work to be painted a slate color and the iron work a stone color.

All the inside woodwork to be grained in imitation of white oak and walnut on the third coat, and then to be varnished twice with best copal or coach varnish.

Iron work on ceilings of jail to be painted a light blue color.

The walnut work to have the best oil finish, rubbed to a smooth surface. The pores of the wood to be well filled with patent filling. All the holes and imperfections in the wood work to be carefully filled with white lead putty, and all knots to be shellaced.

Glazing.

All the glass throughout to be the best American sheet glass, double thickness, bedded and back puttied and to be free from waves, blisters or smoke stains, and to be left perfect and whole at the completion.

Conditions.

That all the material and labor used are to be the best of their respective kinds and if there is anything omitted in these specifications or that is not fully shown on the plans which should be necessary for the full completion of the building, according to the full intent and meaning of these specifications and drawings, the same to be done at the expense of the contractor without extra charge.

The work to be done under the superintendence of Thomas Boyd, architect, who will have power to reject any materials or labor which in his opinion is not in accordance with these specifications. Where the figures and measurements do not agree the figures to be taken.

The plans and working drawings may be seen at the Banking House of JOHN HOWE & SONS, Carrollton, Ky., or at the office of THOS. BOYD, Architect, Pittsburgh, Pa.

W. F. HOWE,
J. A. DONALDSON,
H. M. WINSLOW,
} Committee.