The accompanying plans are designs for the New Custom House, proposed to be erected in this city; it they are herewith submitted for the consideration of the Commissioners appointed to superintend the structure.

The building to be 140 feet by 75 feet together dimensions, and to be built of some suitable granite such as may hereafter be decided on. The only partitions, walls, &c., to be of good hard brick. The whole edifice may be rendered fire proof by substituting iron where wood is generally used. The roof of upper story floor, may be made with iron beams, rafters &c., & the roof covered with copper. The floors of the two upper stories, to have iron beams, arched between with bricks or flagged with pine slate, which can be obtained from 5 to 10 feet in length, it makes as light as well as as strong flooring. The cellar, basement, & principal floors to be brick vaults, of a spherical form. This form of arches has recently been introduced, its found to require less abatement from the lateral thrust being less than that of arches of a different construction. The Brunel Magazine for the Navy, at Charlestown, which was completed last season, is of this construction, likewise two fine paved rooms, for the county records, in the New Custom House, which answers well the purposes for which they were intended. The floors over the Steam Engine & Boiler rooms of the Piper walk, in the Navy Yard, are constructed with iron beams & brick arches between them, & are likewise satisfactory. This latter mode however is rather more expensive than malleting, but does not require as greater thickness of walls than when wood is employed for the floors, it consequently is well calculated for upper rooms, where there is but little weight upon the walls.

The doors may be made of iron. The entrance door, to be of bronze, after the manner of those of the Pantheon at Rome. The sashes, frames &c., may be of the finest cast iron, annealed (as is now done by ironmongers in cast iron work) so as to render it nearly if not quite as tough as wrought iron. The sashes may be made folding or hung with weights lined in the usual manner.

The whole foundation to be laid as low, & the cellar as deep
as can be well drained, to be filled with good, substantial paving, division with
a space weighing not more than one ton of falling through as spaces of at least
25 feet.

The space between the walls now existing, or the exterior walls of the building
is left undivided (on the plan of the cellar) if the partition walls may be put
up at such places as required. Openings at proper distances, to be left in the
pavements, for getting down coal or any other article.

A passage to be placed in the centre of the cellar, of sufficient
capacity to heat the

by

air, with the aid of flues, so constructed as to

of the floor), in safety from fire, in preservation from smoke
dust, and, in economy of fuel; it cannot fail to be generally adopted
when it can be applied. It will be desired to make the apartments completely
warm, the only way is, to have a body of heated air issuing from the
pavements of the hall, and when the rooms door open, instead of having to
struggle with cutting such a cold air, there will be a new sensation of
warm air. Every one must be sensible of the severe colds which are
carried by persons, who perished heated by a large fire, or crowded rooms,
have a cold draught of air thrown upon them, from the opening of the door,
or who have to leave a passage room, it makes up a draught increased where
the air is as cold as in the street, or worse freezing from the draught.

The East & West Elevations are composed of three parts, a centre
of two wings. The centre is a Portico of six fluted columns, of the Ionic
order fronts a Temple on the Acropolis at Athens. This is considered a very
fine example, uniting elegance with simplicity. The members or parts being
few, their effect is clear & distinct, calculated for effect at a distance. It
is also admirably adapted to be worked in the granite of this neighborhood.

This Portico has Antae, the whole elevated upon a rustic basement with
solid piers, one of which stands under each column leaving a foot-way for
passages between them. The columns support an entablature & pediment, the
tympanum of which may be decorated with some emblematical figures, but
it is left without ornaments in the drawing, for want of time to make a
suitable design. The entablature is to extend around the whole building six
mounted by a blocking course, in which are shown small windows for
lighting the upper rooms, but these windows may be dispensed with, if the
unobtrusive plate glass or ships' deck lights substituted in the roof. Both
of these have been successfully employed in buildings lately erected at the
Navy Yard.

The elevation North is composed with two columns, & entablature of the
same style as just described. The South elevation is wholly in Anteae.
There is shown upon the North elevation a Dome, which may be omitted,
or one of a different form may be adopted. I intended to have made
9 or 10 sketches of different forms of cupolas & Domes in order to place on
the Elevations, but time will not allow. Should it be desired, they can be
finished, but interior, cupolas & Domes are going out of use in public
buildings of the present age.

The Basement story is entered (as shown on the plans) from the
four fronts. The principal entrances however are from the East & South. The
staircase leading to the principal floor has an easy ascent, & it is intended
to be made of marble. The other staircases are calculated to be of granite.
The central or principal staircase which lands upon a gallery communica-
ting to all parts of the principal story, will require much workmanship
than can be executed in granite.

Now the principal floor is the grand business room, the form
of style of which are shown on the plan & section. It is proposed to
make the columns of Italian Marble, of a light brown color except
the capitals, which are to be white. The proportions & character of the
order of this room, to be that of the Athenian Monument of Symeites, at
Athens - the Columns to be 2 feet 5 inches diameter. The Antae to be
of Marble the same as the columns. The ceiling to be arch'd with
brick & handsomely finished with coffers &c. in stucco.

Time will not allow me to go into the details of describing the
materials of work of the Edifice, but should the Board of Commissioners
think favorably enough of the designs herewith presented, I adopt them
I will immediately set about making the plans in detail. Until the
working plans are considerably advanced no very accurate description can be
inside out.

By observing the designs herewith submitted, great care has been observed to make the exterior subserve the interior arrangements, as regards convenience.

"The practice of copying or committing ancient buildings cannot be too much reprobated. It manifests want of genius, want of judgment, and want of taste. In architecture, can new improve whilst modern professors who aspire to the name of Artists continue to be mere copyists."

The system has of late been recommended, and in many instances adopted, of decorating with Columns, Pediments, &c, the end or principal front of an edifice, thereby making it the principal front; but allow the commanding prospect of the east front of the New Custom House & the importance of having the broadest front, which will certainly make the most imposing appearance, are considered, it is believed that it will be admitted by all Amateurs of Grecian & Roman Architecture, that this facade ought to be made the principal front. The western Portico may be omitted, if deemed advisable. The elevation on State Street is presumed to be sufficiently decorated, so as in keeping with the other parts of the building.

Should any part of these designs meet the approbation of the Hon. Board of Commissioners, the Architect who presents them will most cheerfully attend to make such alterations as they may suggest, who would be very happy to be employed as the Architect of so noble an edifice.

Boston, May 1, 1838

(Signed) Alexander Garnet

Note: Since the plans were commenced & nearly completed by the above communications penned, I have only considered the subject of Domes, as applicable to this edifice, it have come to a conclusion not to recommend a Dome, but merely a lantern or skylight, to be placed upon the roof, which will not be seen from the streets & will light the central staircase & ventilate much better than a Lantern placed upon a Dome, which must be considerably elevated. I have therefore left off the Dome on one of the Elevations, which is drawn to a larger scale than the plans & section.

A. P.