

Hudson's

BUILDING AND ENGINEERING CONTRACTS

*Including the Duties and Liabilities of
ARCHITECTS, ENGINEERS AND SURVEYORS*

TENTH EDITION

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AUSTRALIA

The Law Book Company Ltd.
Sydney : Melbourne : Brisbane

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Pakistan Law House
Karachi

LONDON

SWEET & MAXWELL

1970

himself as agent of the employer and the builder, or between the building owner and the builder.⁷⁰ So, if in fact a dispute had arisen as to the measurements in *Chambers v. Goldthorpe* (1901), his decision would have been protected from any allegation of negligence. Where, however, an architect accepts measurements submitted by a builder, without investigation, it is hard to see in what respect he can be said to be acting judicially when issuing a certificate based on those measurements. Applying this suggested test to defects in the work, it is suggested that unnoticed defects could not form the basis of any judicial act, whereas known or suspected defects which had been considered by the certifier and valued or ruled upon by him might attract the immunity. Whatever the true view, it is clear, it is submitted, that the decision will not normally prevent an action brought against an engineer or architect where the negligence pleaded is that of faulty supervision.⁷¹ But the case, which stands virtually alone, merits a complete review by the courts.

It is perhaps unnecessary to emphasise the injustice and practical difficulties to which such an immunity can give rise, since an employer will, in the absence of an overriding arbitration clause, be deprived of his remedy for defective work against both the contractor and the architect or engineer, if the reasoning of the decision is correct.

Until recently, this extreme position was unlikely to arise in modern times, because under most standard forms of contract the arbitrator was given power to review even the final certificate of the architect or engineer.⁷² Under the 1957 revised edition of the R.I.B.A. form of contract, however, clause 24⁷³ was reworded so as to confer beyond any possible doubt binding force upon this certificate in relation to many matters unless notice of arbitration is given prior to its being issued; in addition the grounds of exception were very considerably narrowed. This has restored the urgency of a review of the *Chambers v. Goldthorpe* principle. An immunity expressed in wide terms on the authority of that case could not, it is suggested, have been the intention of the contract of employment of the architect (on this point it is difficult to disapprove of the reasoning in the passage from Ogilvie Thompson J.'s judgment quoted *supra*).

⁷⁰ See *per* Ogilvie Thompson J. in *Hoffman v. Meyer*, 1956 (2) S.A. 752 at p. 758.

This judgment contains the clearest and most up-to-date discussion of this subject.

⁷¹ *Saunders v. Broadstairs Local Board* (1890), *Rogers v. James* (1891), and *Leicester Guardians v. Trollope* (1911), Hudson's B.C., 4th ed., Vol. 2, pp. 164, 172 and 419 respectively.

⁷² See *post*, Chap. 7, pp. 435 *et seq.*, and the decision in *Windsor R.D.C. v. Otterway & Try* [1954] 1 W.L.R. 1494, in fact overruled in *East Ham Corporation v. Sunley* [1966] A.C. 406.

⁷³ See *post*, Chap. 7, pp. 489-492.

The post-1963 R.I.B.A. standard forms have carried the matter still further, since the range of matters over which the architect's final certificate may become binding has been widened (to include, somewhat surprisingly, decisions by the architect as to whether or not he has furnished the contractor with information and drawings on time) although in this instance the certificate will bind the employer and not the contractor.⁷⁴ In any event, the provision is far more prejudicial to the employer than to the contractor.^{74a}

If the limitation on the effect of *Chambers v. Goldthorpe* (1901) put forward above is accepted as correct, however, the employer will at least have a remedy against his architect in the case of unnoticed defective work, and a considerable increase in litigation against architects can be expected as an indirect result of these changes in the standard form since on any view, it is submitted, that case cannot apply to defects which the architect ought to have detected during the currency of the work, where the breach will have no connection with the issue of the final certificate.

SECTION 7. DUTIES AND LIABILITIES OF QUANTITY SURVEYORS

(1) Bills of Quantities Defined

It has become increasingly the practice in the U.K. for substantial projects to be let on a "measured contract" basis, with bills of quantities describing in detail every item of the works to be done forming part of the contract documents.⁷⁵

Bills of quantities normally devote a separate bill to each trade necessary for the erection of a building or the construction of works. For instance, there are usually separate bills for excavation work, for concreting, bricklaying, joinery, paving, tiling, ironmongery, painting, and so on. Generally, also, there is a bill for what are called preliminary items such as general foreman, site huts, insurances, special liabilities under the contract, water, and other items which are applicable to all trades. Preliminary items frequently give rise to difficulty when valuing variations.⁷⁶ Some bills, particularly in engineering works, are, however, subdivided with reference to different sections of the works rather than separate trades.

⁷⁴ This is the clear result of the combined effect of clause 24 and clause 30 (7).

^{74a} See *post*, Chap. 7, pp. 489 *et seq.*, where the clause is considered more fully.

⁷⁵ See *post*, Chap. 8, pp. 509 *et seq.*, where the evolution of this type of contract is considered.

⁷⁶ See *post*, Chap. 8, p. 555, note 44, and see p. 556.

Bill of quantities in engineering contracts are the summary and are detailed, since the processes involved, while more massive, are generally less complex, and since the rates are frequently of a "composite" character—as, for instance, a single lineal-yard rate for excavating, supplying laying and jointing pipes, and backfilling including restoration of the surface.

A bill of quantities is usually divided into columns. As prepared by the quantity surveyor the left-hand columns indicate the quantities and units of measurement which it is anticipated by the quantity surveyor will have to be carried out. Wherever possible these are calculated from or "taken off" the drawings, and may be expected to be very accurate, but some items, such as quantities for taking out soft or unsuitable ground, or for excavation in rock, can in the light of the information available at the tender stage, only be estimates and provisional in character. Then follows a column in which is described, in varying degrees of detail, the item of work to which the quantities apply. The quantity surveyor then leaves two blank columns, in the first of which the contractor inserts his price or rate for each unit of measurement and in the second of which the contractor grosses up the total amount to be charged for the quantities contemplated by the quantity surveyor at the price or rate inserted by the contractor. The exact nature of the work in the bills cannot usually be fully understood or defined without reference to the specification, which describes the work processes and quality of material required in much greater detail by comparison with the "shorthand" descriptions in the bills. In the R.I.B.A. forms the specification is included in the bills of quantities themselves, usually in the form of lengthy preambles to the bills as a whole and also to the individual bills, as well as in the verbal descriptions of items or groups of items.

The amounts to be charged alongside all the various items are then collected into a summary for each bill, these summaries in turn being collected into a grand summary for the whole of the work.

Bills of quantities may, depending on the terms of the contract, serve a number of functions:

- (i) they indicate with some precision to tendering contractors the amount and nature of the work they will have to carry out,
- (ii) they indicate to persons examining the tender on behalf of the employer the make-up of the tender,

work undertaken for the contract price, which is very important once the work is complete and the actual quantities known (iv) they form the basis of valuing variations in the work (variation being something different from a mere discrepancy between billed and actual quantities arising from error or inaccurate estimates of the quantities in the bills, which will be adjusted under the special provisions relating to the bills),

- (v) in the R.I.B.A. standard forms of measured contract, the are the specification of the work.⁷⁷

Quantities are attractive to builders in the United Kingdom because they greatly reduce the burden and expense of tendering and because, in practice, builders are asked to tender for far more work than they can expect to get; because, in practice, they are usually afforded far too little time to tender; and, less worthily perhaps because over- or under-estimates (or failure to comply with the standard methods of measurement) which can be detected in the bill at the tender stage, and known or probable variations of the work at that time, can be taken advantage of when pricing, so as to present the employer with an apparently attractive price which reality will require to be adjusted upwards, while undetected errors will in any event be adjusted. Reference has already been made to the efforts made by trade agreements of the building contracts to secure the universal adoption of measured contracts with bills for all work of more than a certain value.⁷⁸

The employment of quantity surveyors is attractive to architects because they enormously reduce the administrative work of the architect both at the tender stage and during the currency of the contract.

It is not unusual, however, for smaller projects to be tendered for without bills, and there is little doubt that the use of bills of quantities on many projects may have the effect of increasing the total cost. Thus the R.I.B.A. has a standard form of contract available for such works (which however contemplates the employment of a surveyor for valuing variations and interim payments and settling accounts), which is commonly but misleadingly referred to as "lump sum" contract, and which in this book is referred to as the specification form of contract, or the form without quantities.

⁷⁷ As a result of clause 3 (3) of the Forms with Quantities.

⁷⁸ *Ante*, Chap. 1, p. 54.

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In bills of quantities (particularly in those for building contracts) it is becoming increasingly common to find a large number of items marked "P.C." (prime cost) or "Provisional sum," which are priced on behalf of the employer before the bills go out to the contractors for tender. These terms have so far defied legal definition.¹⁵ The origin of the word "provisional" in the expression "provisional sum" is a corruption of the expression "Provide the sum of £—" in old specifications—i.e. it is a *provided* sum,¹⁶ rather than an indication of provisional or contingent work. The reasons sometimes advanced for dealing with work in this way are, first, that the work may be provisional in character at the time of contract, either because the work may not be carried out at all, or because an element of choice by the employer or his architect is involved, and, secondly, that in relation to some specialist sub-contracted work, the work may not have been designed or may be difficult to price^{16a} at the date of the contract. In fact, by a curious confusion of these two quite different considerations, the two terms, which by themselves appear to have little legal significance, are invariably used as part of the contractual machinery relating to nomination or selection of specialist sub-contractors.¹⁷ There is, in fact, no reason why nominated sub-contractors' work should be provisional in character, any more than the builder's or his own sub-contractors' work. Examples of genuine provisional work arise, for instance, where the architect has in mind the possibility of using an alternative method of construction to that shown on the drawings or itemised in the bills, in which case he may include a provisional sum for the alternative work; or of having to increase or change the quantity of a part of the works (e.g. foundations); or of encountering an unknown quantity, e.g. of rock or "soft spots." In these cases he may insert a nominal quantity, marking the item "Provisional." These latter, however, are cases of *provisional quantities*, not of a *provisional sum*, and do not attract the sub-contracting machinery in the contract. There is, of course, no necessary connection between such genuinely

¹⁴ Cf. the Standard Method of Measurement of Civil Engineering Quantities.

¹⁵ See *post*, Chap. 15, pp. 758 *et seq.*

¹⁶ See *per* Romer L.J. in *Leslie & Co. v. Metropolitan Asylums District* (1903) 1 L.G.R. at p. 868, and the discussion *post*, Chap. 15, p. 758.

^{16a} The importance of the pricing difficulty as a reason for the system has perhaps been underestimated—see *post*, Chap. 15, pp. 757–766.

¹⁷ For a discussion of this subject, see *post*, Chap. 15, pp. 756 *et seq.*

by the main contractor, a valuation or accepted estimate of the work, for the P.C. or provisional sum. Where no such provision exists it may, it is suggested, be possible at the present day to establish by evidence a usage to this effect. The 1963 Standard Method of Measurement (Fifth Edition) has in the case of building contracts sensibly recommended the use of the term "Provisional sum" (in the absence of express contractual definition) for work or costs not clearly foreseen, defined or detailed at the time of tender (i.e. genuine provisional work), and the use of the term "prime cost sum" for work or services to be carried out by nominated sub-contractors, statutory authorities or public undertakings, or for materials or goods supplied by a nominated supplier (i.e. in all cases work which definitely will be done, but will be done, or in the case of materials supplied, by persons other than the contractor and selected by the employer).¹⁸ It is to be hoped that all persons in the industry, including those drafting contracts, will adopt this entirely useful and logical definition and bear the important underlying distinction in mind. Regrettably, there is no explicit incorporation of the distinction in the post-1963 R.I.B.A. standard forms,¹⁹ and only in certain parts of the contract do the expressions appear to be used with the standard method definition in mind.

(c) Specifications

As has been seen, in the normal instance where work has been professionally designed prior to the contract on behalf of the employer, and its content is known with a comparative degree of certainty, a contractor may be required to tender on bills of quantities, which in that event may or may not embody the specification,²⁰ and in addition to providing a basis for re-calculation (or "re-measurement") of the contract sum are also the basis of valuation of variations. It is, however, quite common to let such contracts, particularly the less substantial ones, such as a contract for a single dwelling-house, not on a measured basis with bills of quantities, but under what is somewhat misleadingly called a "lump sum" or "fixed price" contract, where the contract sum is not subject to re-calculation unless there have been variations in the work. In this

¹⁸ Rule A7. Later rules, however, blur the distinction.

¹⁹ Certainly there is none in the post-1963 specification forms.

²⁰ Not under the standard I.C.E. form.

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(2) By a contract to build a pier it was provided that any disputes or differences arising upon any matter connected with the contract were to be referred to the engineer, whose certificate was to be final. The engineer, notwithstanding a provision that the contractors should be paid "provided . . . they shall have delivered to the employer a full account in detail of all claims they have on the employer, and the engineer shall have given a certificate, in writing, of the correctness of such claims," certified as extra work which had never been done at all, and work which, although extra, had not been done on signed or countersigned orders in pursuance of a clause providing that "no additional or extra work shall be paid for unless it has been executed under the authority of such signed and countersigned instructions." *Held*, that the certificate of the engineer precluded the defendants from raising the question whether extras had been done, and that the engineer had power to determine whether a particular work was within the contract or was an extra. "The signature and the countersignature is no doubt a condition precedent to the right of payment, but so is the completion of the work to the satisfaction of the engineer; but so are a variety of other matters all conditions precedent. But all those matters are to be taken into account, the right to which is to be ascertained by certificates, the engineer is to go into all those matters, is to satisfy himself that the conditions precedent to a right to payment have been fulfilled; and he would have neglected his duty if he had certified for any work if any of the stipulations of the contract which he, as the agent of the defendants, was to enforce, had not been complied with by the plaintiffs," *per Coleridge C.J. Laidlaw v. Hastings Pier Co.* (1874).³⁹

(3) A building contract contained the following clause: "All extras or additions, payment for which the contractor shall become entitled to under the said conditions, and all deductions which the building owner shall become entitled to, shall be respectively paid or allowed for at the price which shall be fixed by the surveyor appointed by the building owner." The surveyor, in his final certificate, certified for certain extras and additions, which the defendant, the employer, alleged were not extras and additions. *Held*, that the certificate was conclusive, not only as to prices, but also as to the question whether these matters were extras or not, and that the clause giving him power to value extras, standing alone, impliedly gave him power to determine what were extras: *Richards v. May* (1883).⁴⁰

(4) A building contract contained a clause that the decision of the architect with respect to the amount, state and condition of the works actually executed, and also in respect of any and every question that might arise concerning the construction of the present contracts, or the said plans, drawings, elevations, specifications, or the execution of the works thereby contracted for, should be final and without appeal. The contract also contained another

³⁸ 35 L.J.C.P. 12. See particularly the judgment and reasoning of Willes J.

³⁹ Hudson's B.C., 4th ed., Vol. 2, p. 13.

⁴⁰ 10 Q.B.D. 400.

ever, unless upon the authority of the architect, to be sufficiently shown by any order in writing, or by any plans or drawings, expressly given and signed or initialled by him as an extra or variation, or by subsequent written approval similarly signed. In all cases where such deviations or extras exceeded £10, the order was to be, in addition to the above, countersigned by two of the building committee. The architect certified a certain sum as due. *Held*, that the decision of the architect as to extras not properly ordered was conclusive, and that the building owners could not resist payment of any part of this sum on the ground that the architect had, by mistake, certified for work not done and improperly done, and that the architect had not made sufficient allowances for work not done: *Laphorne v. St. Aubyn* (1885).⁴¹

The above cases are based on the principle that the requirement that the builder should obtain the certificate is the overriding one, and that, the employer having required the determination of liability for extras to be left to the certifier, cannot complain of the latter's decision.⁴² While the basis of the principle can be easily accepted, it is not, however, logically easy to reconcile all the cases with these which show that a certifier who takes incorrect matters into account or who acts outside the terms of his authority may render his certificate a nullity.^{42a}

In considering any case in which there is an arbitration clause, however, it should be borne in mind that if the arbitration clause is wide enough, the decision of the architect as to what works are or are not extras, and even the conclusiveness of the final certificate, may be open to review by the arbitrator.⁴³

SECTION 3. VALUATION OF AND PAYMENT FOR EXTRAS AND VARIATIONS

It is usual for the contract to provide for the measurement and valuation of extras and variations. Thus it is usual to find that the varied work is to be paid for at rates contained in a schedule attached to the contract, if there are no bills of quantities, or in a contract with quantities at the rates or prices contained in the bills of quantities.⁴⁴

⁴¹ 1 Cab. & El. 486, following *Laidlaw v. Hastings Pier Co.*, *supra*.

⁴² *Ante*, Chap. 7, pp. 419-420.

^{42a} *Ante*, Chap. 7, Section 5, p. 477.

⁴³ See *ante*, Chap. 7, Section 4, for a full discussion of this subject.

⁴⁴ In such provisions, the words "rates" or "prices" mean, it is submitted, *all* rates or prices applicable to the varied work, including any preliminary or other items which may be affected by a variation.

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