

# Ninth International Apprentices Contest

**Under the eyes of Government and university representatives, some of the ablest apprentices in Europe have been contesting a competition which grows every year in company support.**

FROM one man's determination, in the face of total lack of interest from British industry ten years ago, participation by United Kingdom firms in the International Apprentices Competition has grown to the point where at this year's ninth competition, just completed in Barcelona, the British were the largest visiting team.

The British 32 team members entered more of the competition categories than any other country except Spain.

The International Competition, enthusiastically supported by European Ministerial bodies, though not by the British Government, provides an up-to-date picture of the importance attached to industrial training over a wide cross-section of Europe, writes ENGINEERING'S Industrial Editor who was in Barcelona for the competition.

From Germany, Belgium, Ireland, Italy, Portugal and Spain the official representatives were all government officials or government accredited. The official representative from Belgium is the administrative principal of the Ministry of the Middle Classes. The technical representative is the provincial secretary of the Vocational Training in East Flanders.

Mr. Frederick D. Hill, the secretary of the British organising committee for the competition, is a private businessman. Mr. Bill Skipworth, the technical representative, is an industrial training executive, generously lent by the Metal Box Company.

## STRUGGLE FOR RECOGNITION

The story began with the entry of one British apprentice, Mr. Hill's son, in the joinery section in 1953. Up to the entry by apprentices, this year from the Marconi's Wireless Telegraph Company, Rolls-Royce, the Central Electricity Generating Board, and other distinguished, famous and not-so-well-known firms it is largely the story of one man's enthusiasm and refusal to be ignored.

Back in 1953 Mr. Hill had entered his son in one of the early International Vocational Training Competitions which had started three years before between the Spanish Youth organization and Mocidade Portuguesa, the Portuguese equivalent body.

The Spanish authorities revealed to Mr. Hill, almost at the last moment, that his son must have a guardian and Mr. Hill had no one he could readily turn to for help. Characteristically he went himself to the competition where, in addition to Portugal and Spain, entries had come from Switzerland, Germany, France, Morocco—and Mr. Hill's son, who later won a gold medal.

His interest in the International Competition strengthened by seeing it at first hand, Mr. Hill returned to Britain a strong advocate of the benefits to British industry of joining in. He sat down at his Canterbury, Kent, home and wrote letters to companies of all descriptions and sizes urging them to take an interest in the competition. The response was almost entirely negative, there were those who appeared to be wondering what Mr. Hill's was "getting out of it," but also a handful who were willing to listen.

One of the first of his converts were the Metal Box Company who, for the last three years, have provided the British technical representative.

The competition was meanwhile receiving growing European support. By mid-1954, draft rules and regulations were being drawn up by a

newly formed organising committee made up from all the interested countries. This committee is the governing body for the competition having an official and a technical representative from each country taking part.

Some of the slowness in catching on which the competition encountered in Britain was due to the belief in some minds that the contests were largely a Spanish affair.

When Mr. Hill met this opinion direct he countered with the reasonable proposal—"Well let us hold them in England." So far this prospect is no more than a distant hope. Next year's meeting is to be in Western Germany, at Duisberg. Both Portugal and Ireland have hopes for entertaining the competitors in 1962 and whoever is the loser will probably provide the venue in 1963.

## IN GERMANY NEXT YEAR

After that it may be that the competition will be sufficiently well recognised for official support to be provided by the British government and the competitors given facilities in the United Kingdom—especially when it is remembered that our keen competitors, the Germans, have played host to the assembled apprentices.

For this year's competition 173 apprentices arrived in Barcelona. The British contingent had been selected competitively from about 220 boys. The Spanish team of 37 were the final selection from many thousand young Spanish hopefuls. From Belgium there was a team of 20, and the Italian and West German teams were each 25 strong.

Housed in a hostel of the Escuela de Maestria Industrial, at Barcelona, the apprentices competed in their divisions separated into age categories. Category A, 96 strong, was for boys who became 19, 20 and 21 this year. Category B, 77, for 16, 17 and 18 year olds.

The trades in which the entries were made included fitting, turning, milling, wood pattern-making, oxy-acetylene welding, electric welding, sheet metal work, house wiring, stone cutting, brick laying, plumbing, house painting, silver

in the corner of the machine shop of the school where the sheet metal workers were forming petrol tanks for motor cycles. The apprentices were banging away on a deeply fissured wooden block. A Portuguese aiming at making his tank in one piece was even standing on his metal, working it on the floor. Back home, the Italians, the Germans and the English boys told me, there would have been sandbags and smooth-surfaced blocks.

In other sectors of the test, covering milling, fitting, and turning, estimates of the machines in use in the Escuela de Maestria were in line with those of the Central Electricity Generating Board apprentice, who told me "I am very happy with the equipment and the conditions of the competition."

Beginning on Monday, 26 September, with an official opening, the apprentices went from the assembly hall to the workshops, balloted for machines and were given material and the drawings for the test. The first work period was for four hours until 7 p.m. On the Tuesday, Wednesday, Thursday and Friday the work periods were from 9 a.m. to 1 p.m. and from 3 to 7 p.m. On the final Saturday the work pieces were handed in at 1 p.m., at the conclusion of the final four-hour work session.

In the negotiations and arrangements preceding the competitions, the position of the British apprentices, accustomed to working in the United Kingdom's measuring system, was pointed out. In order to get over this the organisers provided suitable conversions.

The proportion of marks allotted for accuracy, finish, and use of materials varied between the trades.

The marking system for fitting was as shown:

Fitting			
	Class A	Class B	
Principal measurements .. ..	20	25	
Secondary measurements .. ..	5	10	
General finish .. ..	15	15	
Fitting of pieces .. ..	55	45	
Good use of materials .. ..	5	5	
	100	100	

Each of the competing apprentices was handed a copy of the marking system for this particular section when he first collected his materials and drawings.

In electric welding the marking system was as shown:

Electric Welding Class B			
Penetration .. ..	..	..	25
Cleanliness of edges .. ..	..	..	10
Start and finish of the run .. ..	..	..	10
Union of runs .. ..	..	..	10
Porosity and scale .. ..	..	..	10
Visual appearance .. ..	..	..	25
Good use of material .. ..	..	..	10
			100

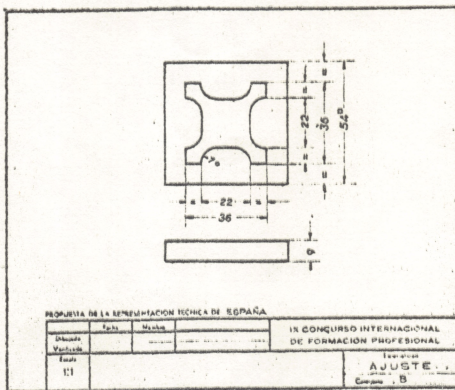
In Electric Welding Class A the time allowed was 18 hours and in Class B 6 hours.

Immediately after the completion of the working part of the competition all the official representatives, observers, competitors and helpers moved off to the ancient coastal city of Tarragona. This was the start of a "cultural tour" which was not the least of the rewards for the apprentices.

What benefit does a firm and its apprentices derive from entering for the competition?

There is a clear encouragement to the apprentices since, at the least, qualifying for entry brings a free foreign trip and tour in the host country. Putting it a little higher, there is the satisfaction for the apprentice of his work being successful in carrying him along a toughly competitive road. The increased spirit of competition set up in the qualifying process is obviously worth encouraging by companies.

At a time when workmanship and finish is an important factor bearing upon the success of competing industries, the importance to a much wider range of British industry than that so far represented is difficult to exaggerate.



Fitting test piece, Class B.

smithing, jewelry, machine designing, draftsmanship, joinery, carpentry, radio fitting, foundry moulding, and a section for blacksmiths.

Not surprisingly, the British apprentices, like the Germans, coming from works provided with an abundance of equipment, found themselves at some disadvantage with, for instance, the Spanish or Portuguese competitors for whom improvisation is second nature. Behind the British or German worker there generally stands a well-filled spare parts store. The Spanish machinist will not necessarily have the same facilities on which to fall back. And this has its effect on what is expected of the apprentice and on the way in which he is trained.

A rather different, if parallel situation existed